

NASA-CR-3239

19800018592

NASA Contractor Report 3239

FOR REFERENCE

NOT TO BE TAKEN FROM THIS ROOM

NASA TLA Workload Analysis Support

Volume 2 - Metering and Spacing Studies Validation Data

James L. Sundstrom

CONTRACT NAS1-13741
JULY 1980

RECEIVED
JUL 11 1980

RECEIVED

LAUNCH CENTER
10000, 10000
HUNTSVILLE, ALABAMA

NASA

NASA Contractor Report 3239

NASA TLA Workload Analysis Support

Volume 2 - Metering and Spacing
Studies Validation Data

James L. Sundstrom
Boeing Commercial Airplane Company
Seattle, Washington

Prepared for
Langley Research Center
under Contract NAS1-13741



National Aeronautics
and Space Administration

**Scientific and Technical
Information Office**

1980

VOLUME 2 TABLE OF CONTENTS

<u>SECTION NO.</u>	<u>TITLE</u>	<u>PAGE</u>
1.0	INTRODUCTION	1
2.0	METERING AND SPACING SCENARIO VALIDATION DATA	3
		Pilot Copilot
2.1	Byers Manual Approach	
	Workload Histogram (WLH)	
	Total Vision	4 29
	Total Motor	5 30
	Cognition	6 31
	Total Communication	7 32
	Weighted Channel Average	8 33
	Workload Summaries (WLS)	
	Cruise	9 34
	Descent	10 35
	Metering and Spacing	11 36
	Final Approach/Landing	12 37
	Mission Timeline (MTL)	
	Cruise	13 38
	Descent	18 41
	Metering and Spacing	22 44
	Final Approach/Landing	26 47
2.2	Byers 2D Approach	
	Workload Histogram (WLH)	
	Total Vision	51 75
	Total Motor	52 76
	Cognition	53 77
	Total Communications	54 78
	Weighted Channel Average	55 79

VOLUME 2 TABLE OF CONTENTS (Continued)

<u>SECTION NO.</u>	<u>TITLE</u>	<u>PAGE</u>	<u>PAGE</u>
		Pilot	Copilot
	Cruise	56	80
	Descent	57	81
	Metering and Spacing	58	82
	Final Approach/Landing	59	83
	Mission Timeline (MTL)		
	Cruise	60	84
	Descent	63	87
	Metering and Spacing	67	91
	Final Approach/Landing	71	94
2.3	Longmont Manual Approach		
	Workload Histogram (WLH)		
	Total Vision	98	128
	Total Motor	99	129
	Cognition	100	130
	Total Communications	101	131
	Weighted Channel Average	102	132
	Workload Summaries (WLS)		
	Cruise	103	133
	Holding Pattern	104	134
	Descent to 11,000	105	135
	Descent to 8000	106	136
	Metering and Spacing	107	137
	Final Approach/Landing	108	138
	Mission Timeline (MTL)		
	Cruise	109	139
	Holding Pattern	114	145
	Descent to 11,000	116	148

VOLUME 2 TABLE OF CONTENTS (Continued)

<u>SECTION NO.</u>	<u>TITLE</u>	<u>PAGE</u>
		Pilot Copilot
	Descent to 8000	118 151
	Metering and Spacing	121 155
	Final Approach/Landing	124 160
2.4	Longmont 2D Approach	
	Workload Histogram (WLH)	
	Total Vision	165 195
	Total Motor	166 196
	Cognition	167 197
	Total Communications	168 198
	Weighted Channel Average	169 199
	Workload Summaries (WLS)	
	Cruise	170 200
	Holding Pattern	171 201
	Descent to 11,000	172 202
	Descent to 8000	173 203
	Metering and Spacing	174 204
	Final Approach/Landing	175 205
	Mission Timeline (MTL)	
	Cruise	176 206
	Holding Pattern	180 213
	Descent to 11,000	182 216
	Descent to 8000	184 219
	Metering and Spacing	187 223
	Final Approach/Landing	191 228

VOLUME 2 TABLE OF CONTENTS (Continued)

<u>SECTION NO.</u>	<u>TITLE</u>		<u>PAGE</u>
		Pilot	Copilot
3.0	METERING AND SPACING DATA FILE	233	
	Phase Library	234	234
	Event/Procedure Library	236	236
	Task Library	293	293
	Subsystem Library	395	395

VOLUME 2 INTRODUCTION

1.0 INTRODUCTION

Volume 2 consists of four sets of TLA graphic reports - one each for the Metering and Spacing scenarios - plus the complete data file from which the reports were generated. Each set of reports is complete for both the pilot and copilot. As can be seen in the index the data is presented for the pilot and then the copilot.

The data presented in this volume were used to validate the data construction of the detailed task scenarios. The outputs present two measures of demand workload and a report showing task length and task interaction. The measure of workload are the Workload Histogram (WLH) and the Workload Summary (WLS). The remaining report output is the Mission Timeline.

The Workload Histograms (WLH) provides a picture of peak demand workload for each ten second intervals of the scenario. Demand workload (Wd) is defined to be the level of effort required to perform a task at a specific time. It is calculated with the following formula:

$$Wd = \frac{\text{TIME REQUIRED FOR THE TASK}}{\text{TIME AVAILABLE (INTERNAL)}} \times 100$$

The WLH's provide an easy and convenient way of examining workload and/or comparing workload between scenarios. They also provide an excellent way of identifying areas which may require investigation due to the workload spike or drop.

The Workload Summaries (WLS) provide a picture of average workload, plus one standard deviation by phase of flight. This measure is presented as a

barchart. Where the WLH shows the complete scenario workload the WLS emphasizes workload during the phase. Also, the WLH does not account for the effects of potential workload as indicated by the standard deviation on the WLS graphics.

The last report presented in each grouping of reports is the Mission Timeline (MTL) report. This shows the tasks as they occur in time. Each task is defined as a horizontal bar indicating the time required to perform the task. The major factor shown in the MTL is the interaction of tasks. Primarily this report is used for analysis and report purposes. It is rarely used as a data debugging tool.

The last section of this volume contains a copy of the data file used to generate the Metering and Spacing scenarios and their report outputs.

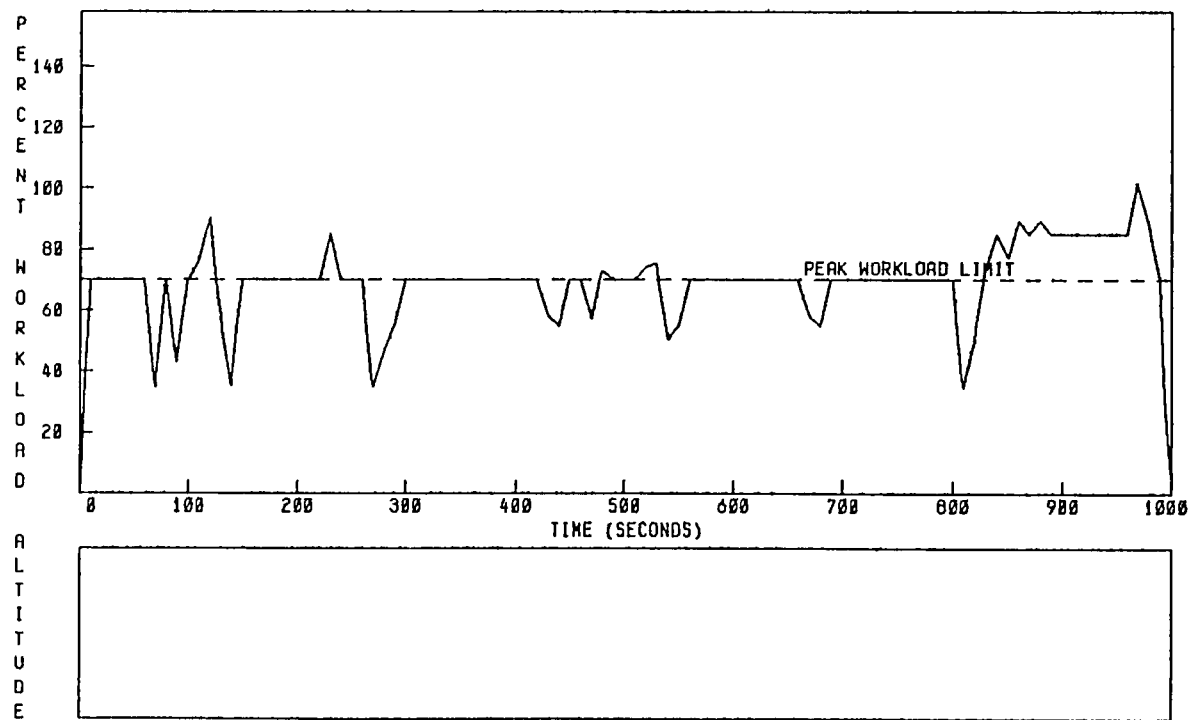
2.0 METERING AND SPACING SCENARIO VALIDATION DATA

The following sections, 2.1 through 2.4, present the output data used to validate the scenarios. The data is presented by crewmember and then by report type as indicated by the index.

UNSHIFTED
AUG 14, 1978

WORKLOAD HISTOGRAM
CREWMEMBER- PILOT
CHANNEL- TOTAL VISION
CONFIGURATION- AFD SIMULATOR

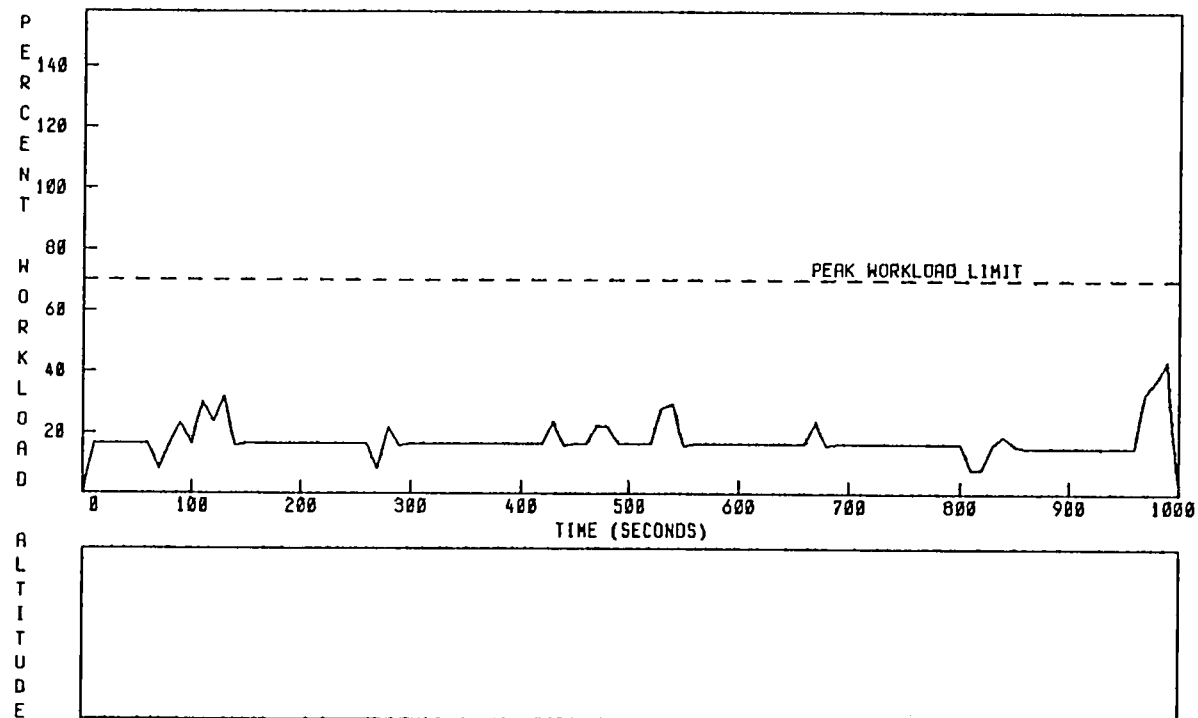
MISSION
DENVER BYRZMC APP/LN
WITH HOLDING PTN



UNSHIFTED
AUG 14, 1978

WORKLOAD HISTOGRAM
CREWMEMBER- PILOT
CHANNEL- TOTAL MOTOR
CONFIGURATION- AFD SIMULATOR

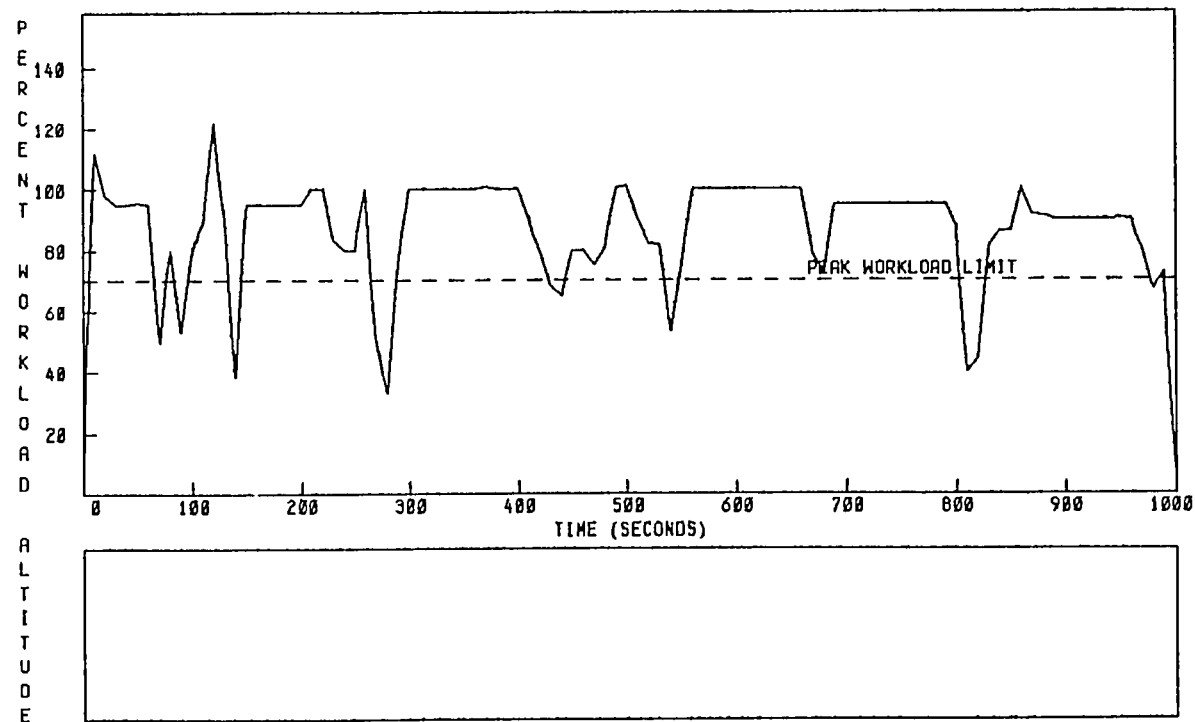
MISSION
DENVER BYRZNC APP/LN
WITH HOLDING PTTH



UNSHIFTED
AUG 14, 1978

WORKLOAD HISTOGRAM
CREWMEMBER- PILOT
CHANNEL- COGNITION
CONFIGURATION- AFD SIMULATOR

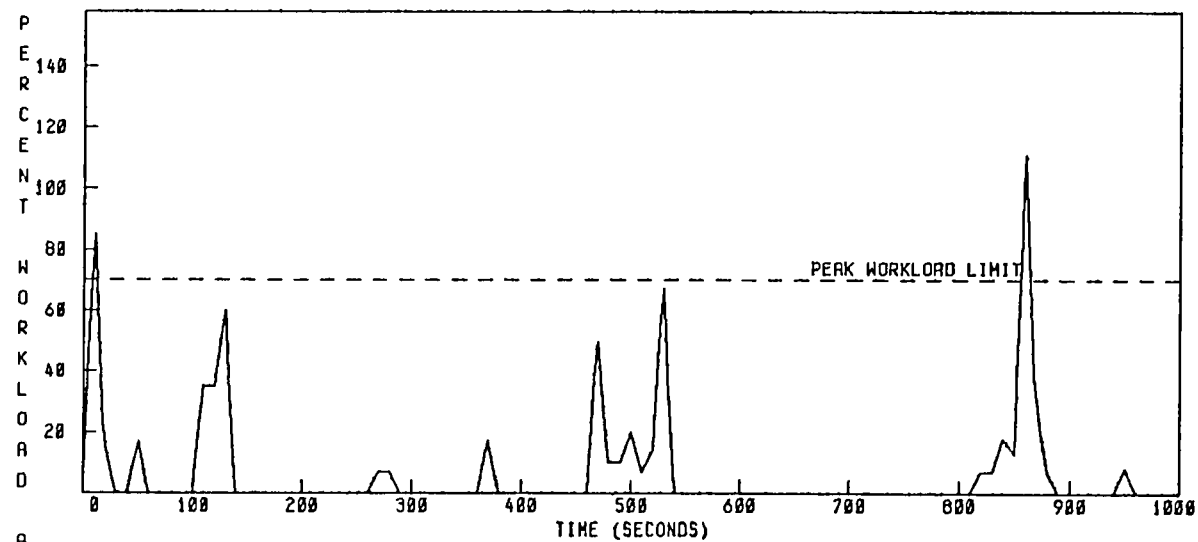
MISSION
DENVER BYRZMC APP/LN
WITH HOLDING PTN



UNSHIFTED
AUG 14, 1978

WORKLOAD HISTOGRAM
CREWMEMBER- PILOT
CHANNEL- TOTAL COMMUNICATION
CONFIGURATION- AFD SIMULATOR

MISSION
DENVER BYRZMC APP/LN
WITH HOLDING PTTN

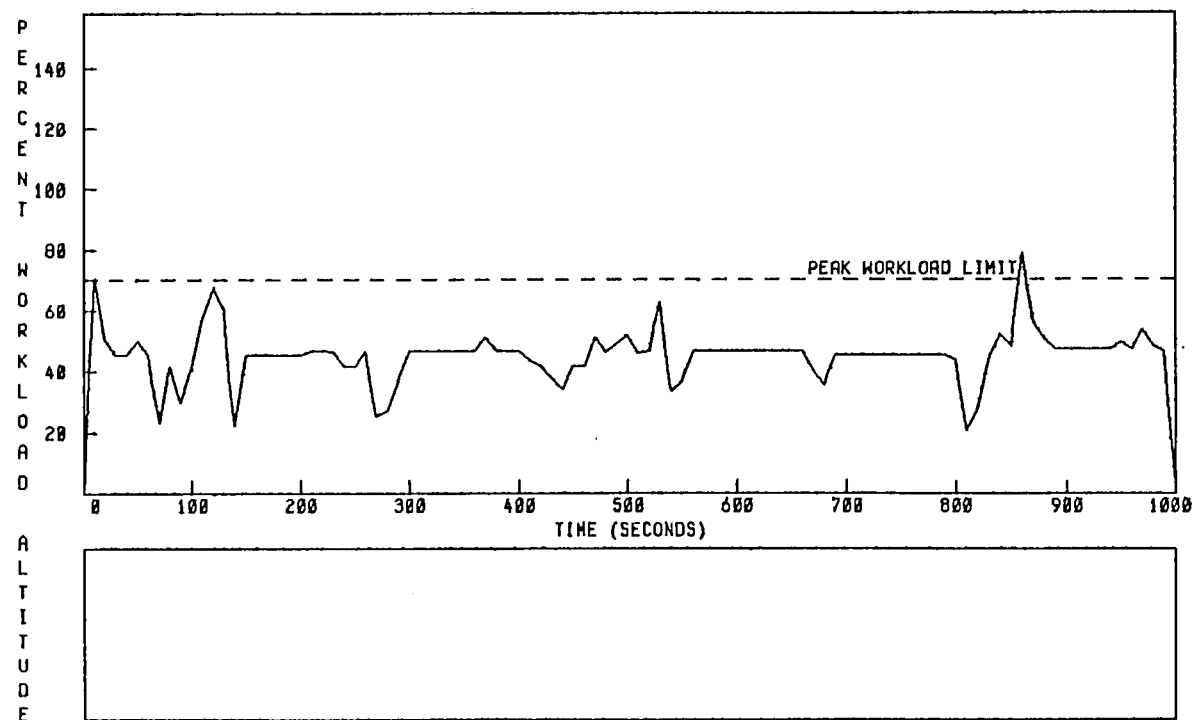


A
L
T
I
T
U
D
E

UNSHIFTED
AUG 14, 1978

WORKLOAD HISTOGRAM
CREWMEMBER- PILOT
CHANNEL- WEIGHTED CHANNEL AVERAGE
CONFIGURATION- AFD SIMULATOR

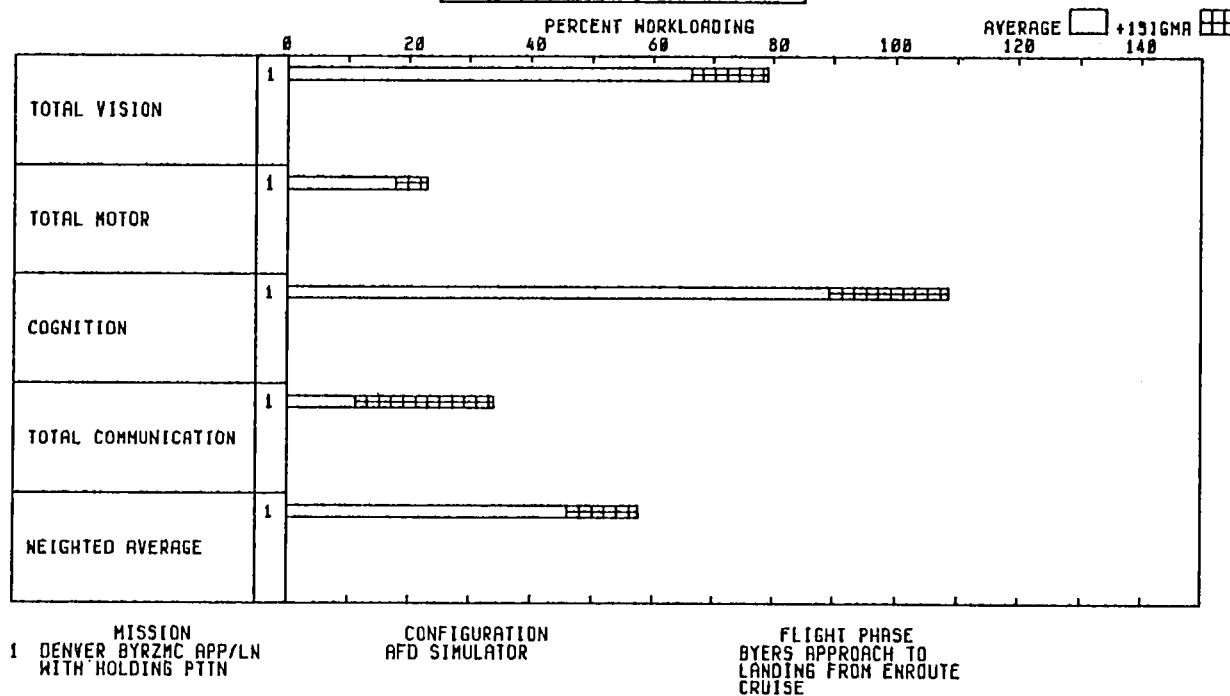
MISSION
DENVER BYRZMC APP/LN
WITH HOLDING PTN



UNSHIFTED

WORKLOAD SUMMARY
CREWMEMBER - PILOT

AUG 14, 1978

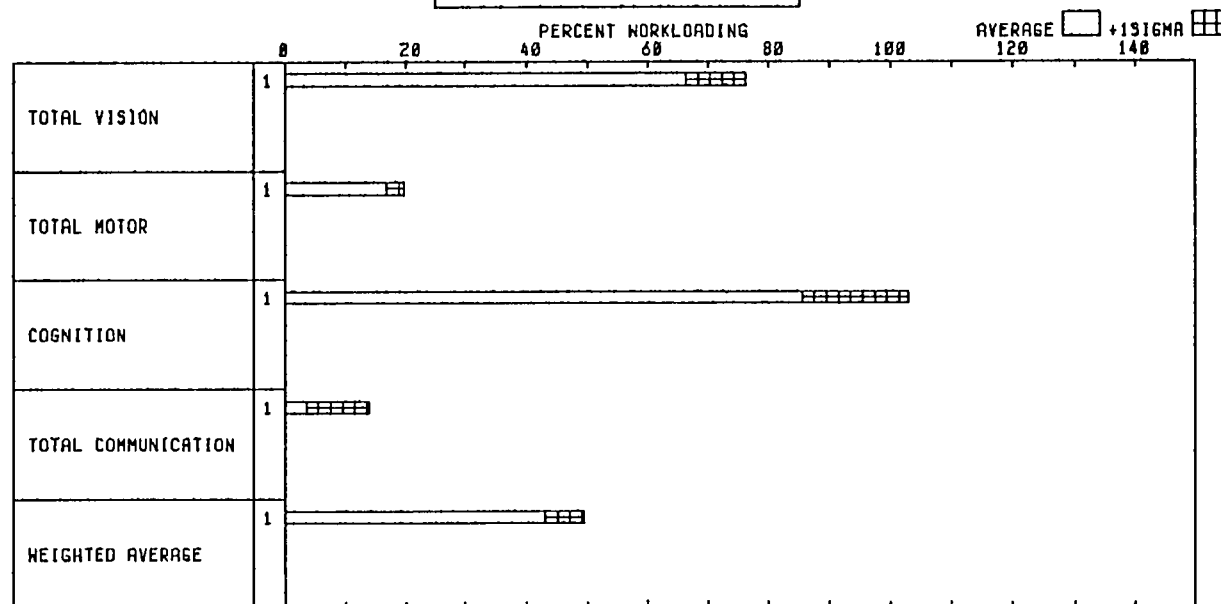


UNSHIFTED

WORKLOAD SUMMARY

CREWMEMBER - PILOT

AUG 14, 1978



MISSION
1 DENVER BYRZMC APP/LN
WITH HOLDING PTTN

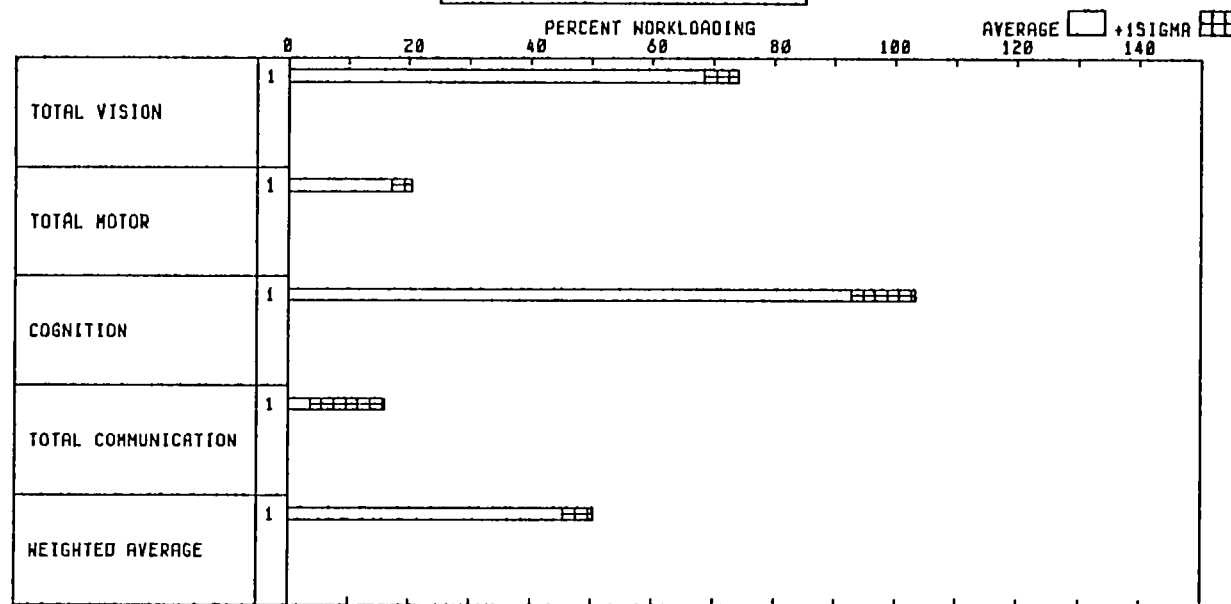
CONFIGURATION
AFD SIMULATOR

FLIGHT PHASE
DESCENT FROM BYERS
TO WATKINS INTER-
SECTION

UNSHIFTED

WORKLOAD SUMMARY
CREWMEMBER - PILOT

AUG 14, 1978



MISSION
1 DENVER BYRZHC APP/LN
WITH HOLDING PTN

CONFIGURATION
AFD SIMULATOR

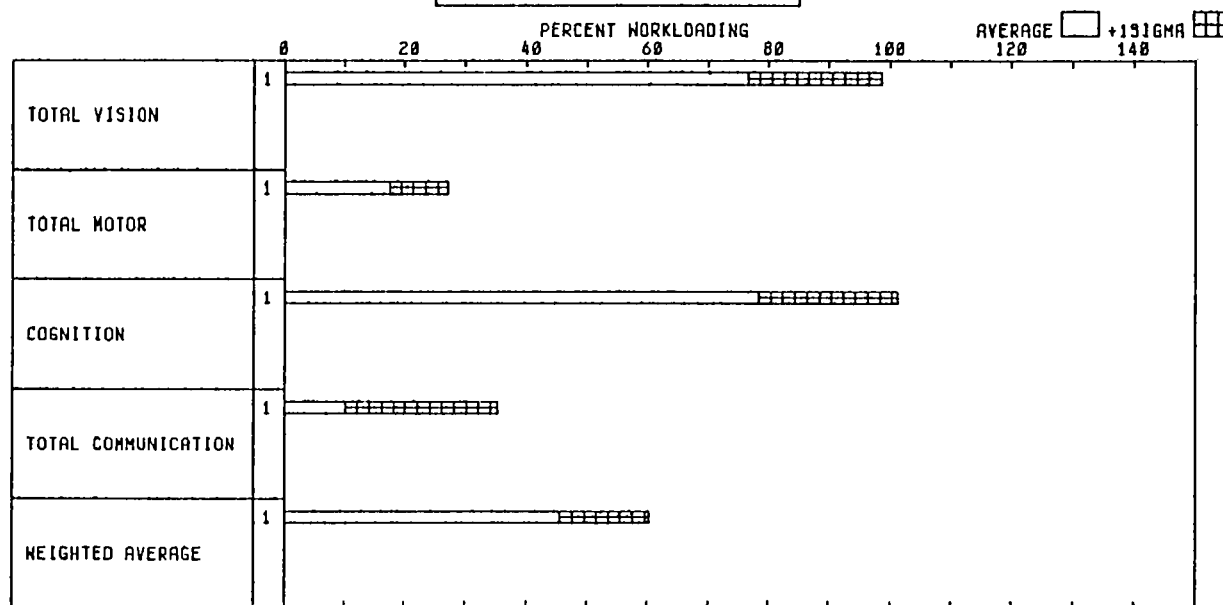
FLIGHT PHASE
COURSE DEVIATION FOR
SPACING - WATKINS TO
THE GATE

UNSHIFTED

WORKLOAD SUMMARY

CREWMEMBER - PILOT

AUG 14, 1978



MISSION
1 DENVER BYRZMC APP/LN
WITH HOLDING PTTN

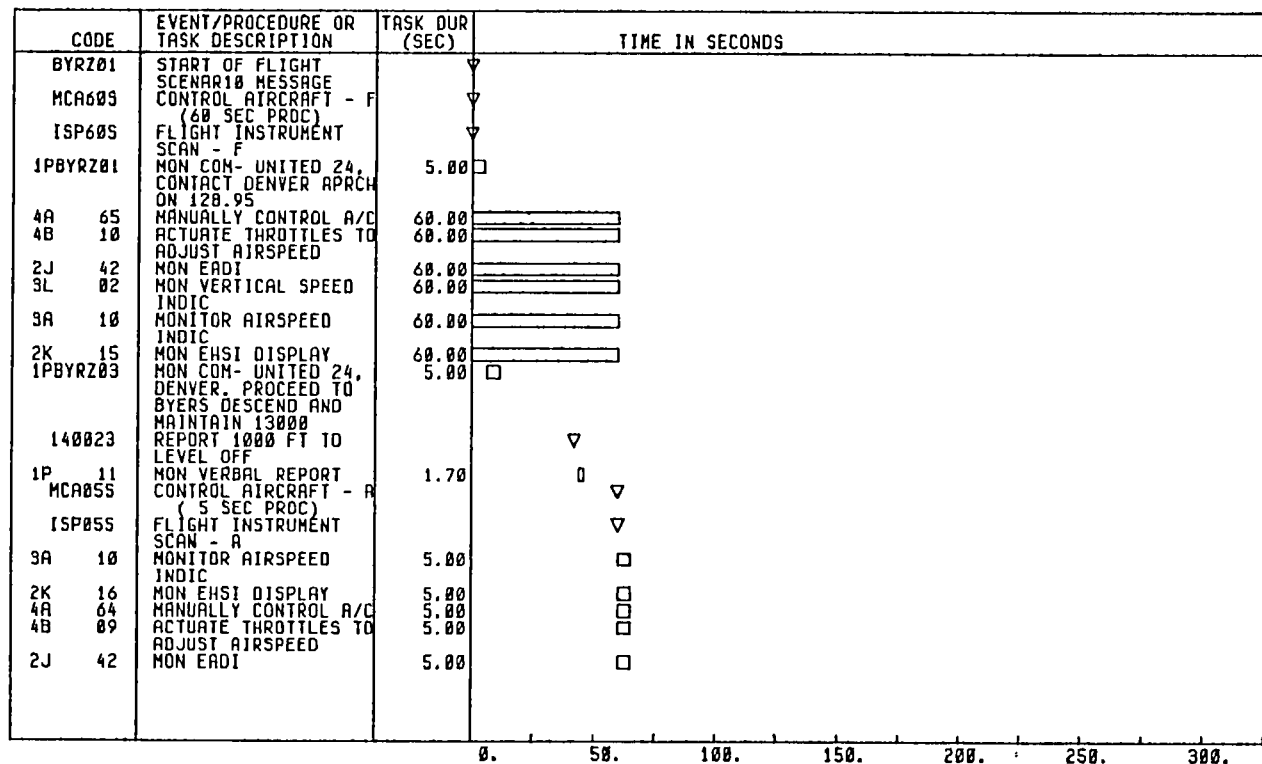
CONFIGURATION
AFD SIMULATOR

FLIGHT PHASE
FINAL APPROACH TO
FROM THE GATE THRU
TOUCHDOWN

UNSHIFTED

MISSION TIMELINE
MISSION - DENVER BYRZMC APP/LN
WITH HOLDING PTTH
CONFIGURATION - AFD SIMULATOR
FLIGHT PHASE - BYERS APPROACH TO
LANDING FROM ENROUTE
CRUISE
CREWMEMBER - PILOT

AUG 14, 1978



CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
9L 02	MON VERTICAL SPEED INDIC	5.00	□
MCA105	CONTROL AIRCRAFT - B (10 SEC PROC)		▽
ISP105	FLIGHT INSTRUMENT SCAN - B		▽
4A 64	MANUALLY CONTROL A/C	10.00	□
4B 09	ACTUATE THROTTLES TO ADJUST AIRSPEED	10.00	□
2J 42	MON EADI	10.00	□
9L 02	MON VERTICAL SPEED INDIC	10.00	□
3A 10	MONITOR AIRSPEED INDIC	10.00	□
2K 14	MON EHSI DISPLAY	10.00	□
BYRZ50	UAL 24 REACHES 13000		▽
ALTCUP	ACTUATE VCMS TO END DESCENT		▽
3H 06	MON ALTIMETER	10.00	□
9L 02	MON VERTICAL SPEED INDIC	10.00	□
3A 10	MONITOR AIRSPEED INDIC	10.00	□
2K 32	MON ALT/RNG SYMBOLS	10.00	□
4F 01	SET SPD BRAKE LEVER TO DOWN	3.26	□
4A 64	MANUALLY CONTROL A/C	10.00	□
MCA105	CONTROL AIRCRAFT - B (10 SEC PROC)		▽
ISP105	FLIGHT INSTRUMENT SCAN - B		▽
3A 10	MONITOR AIRSPEED INDIC	10.00	□
2K 14	MON EHSI DISPLAY	10.00	□
4A 64	MANUALLY CONTROL A/C	10.00	□
4B 09	ACTUATE THROTTLES TO ADJUST AIRSPEED	10.00	□
2J 42	MON EADI	10.00	□
9L 02	MON VERTICAL SPEED INDIC	10.00	□
BYRZ51	U 24 CLEARED FOR DESCENT		▽
BYRZ02	RECEIVE CLEARANCE TO 12000		▽
MCA055	CONTROL AIRCRAFT - A (5 SEC PROC)		▽

0. 50. 100. 150. 200. 250. 300.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
ISP055	FLIGHT INSTRUMENT SCAN - A		▽
3A 10	MONITOR AIRSPEED INDIC	5.00	□
2K 16	MON EHSI DISPLAY	5.00	□
1P8YZ05	MON CALL- UNITED 24 DESCEND AND MAINTAIN 12000.	3.50	□
4A 64	MANUALLY CONTROL A/C	5.00	□
4B 09	ACTUATE THROTTLES TO ADJUST AIRSPEED	5.00	□
2J 42	MON EADI	5.00	□
3L 02	MON VERTICAL SPEED INDIC	5.00	□
AFDALT	ALTITUDE CHANGE PROC		▽
2H 33	ROTATE ALT ENG KNOB	2.47	▽
ALTCN	ACTUATE VCHS TO START DESCENT		▽
2K 32	MON ALT/RNG SYMBOLS	10.00	□
4F 03	SET SPEED BRAKE LEVER TO FLT DETENT	3.26	□
4A 64	MANUALLY CONTROL A/C	10.00	□
3H 06	MON ALTIMETER	10.00	□
3L 02	MON VERTICAL SPEED INDIC	10.00	□
3A 10	MONITOR AIRSPEED INDIC	10.00	□
2H 34	READ ALT ENG VALUE ON DIGITAL INDIC	1.06	-
8YZ03	RECEIVE CLEARANCE TO 11000		▽
1P8YZ07	MON COMM- UNITED 24 DESCEND AND MAINTAIN 11000.	3.50	□
MCA105	CONTROL AIRCRAFT - B (10 SEC PROC)		▽
ISP055	FLIGHT INSTRUMENT SCAN - A		▽
MCA105	CONTROL AIRCRAFT - B (10 SEC PROC)		▽
ISP105	FLIGHT INSTRUMENT SCAN - B		▽
4B 09	ACTUATE THROTTLES TO ADJUST AIRSPEED	10.00	□
2J 42	MON EADI	10.00	□
3L 02	MON VERTICAL SPEED INDIC	10.00	□

0. 50. 100. 150. 200. 250. 300.

CODE		EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
3A	10	MONITOR AIRSPEED	10.00	
		INDIC		
2K	14	MON EHSI DISPLAY	10.00	
4A	64	MANUALLY CONTROL A/C	10.00	
4B	09	ACTUATE THROTTLES TO	10.00	
		ADJUST AIRSPEED		
2J	42	MON EADI	5.00	
9L	02	MON VERTICAL SPEED	5.00	
		INDIC		
3A	10	MONITOR AIRSPEED	5.00	
		INDIC		
2K	16	MON EHSI DISPLAY	5.00	
4A	64	MANUALLY CONTROL A/C	10.00	
BYRZ52		U 24 SPEED REDUCTION		
		TO 250 KTS		
BYRZ71		U 24 ENDS DESCENT		
		FOR SPEED REDUCTION		
BYRZ04		RECEIVE SPEED REDUCT		
		ION TO 250 KTS		
BYRZ04		RECEIVE SPEED REDUCT		
		ION TO 250 KTS		
1PBVRZ09		MON COMM- UNITED 24	3.00	
		REDUCE SPEED TO 250		
		KNOTS.		
1PBVRZ09		MON COMM- UNITED 24	3.00	
		REDUCE SPEED TO 250		
		KNOTS.		
ALTCUP		ACTUATE YCHS TO		
		END DESCENT		
3L	02	MON VERTICAL SPEED	10.00	
		INDIC		
3A	10	MONITOR AIRSPEED	10.00	
		INDIC		
2K	32	MON ALT/RNG SYMBOLS	10.00	
4F	01	SET SPD BRAKE LEVER	3.26	
		TO DOWN		
4A	64	MANUALLY CONTROL A/C	10.00	
9H	06	MON ALTIMETER	10.00	
AFD3PD		AIRSPEED CHANGE PROC		
MCAB55		CONTROL AIRCRAFT - A		
		(5 SEC PROC)		
4A	64	MANUALLY CONTROL A/C	5.00	
4B	09	ACTUATE THROTTLES TO	5.00	
		ADJUST AIRSPEED		
2H	47	ROTATE CAS ENG KNOB	2.45	
2H	48	READ CAS ENG VALUE	1.04	
		ON DIGITAL INDIC		

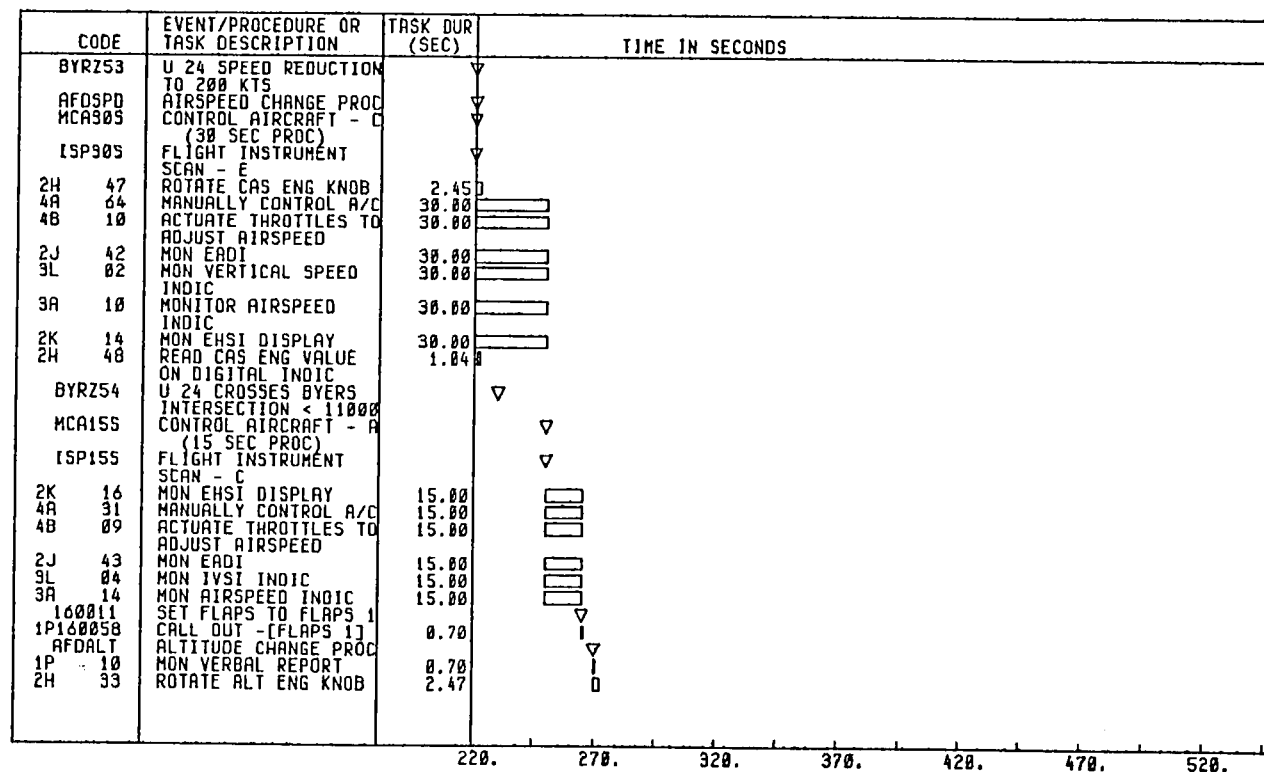
CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
MCA605	CONTROL AIRCRAFT - F (60 SEC PROC)		▽
ISP605	FLIGHT INSTRUMENT SCAN - F		▽
4A 65	MANUALLY CONTROL A/C	60.00	
4B 10	ACTUATE THROTTLES TO ADJUST AIRSPEED	60.00	
2J 42	MON EADI	60.00	
3L 02	MON VERTICAL SPEED	60.00	
3A 10	MONITOR AIRSPEED INDIC	60.00	
2K 15	MON EHSI DISPLAY	60.00	
MCA055	CONTROL AIRCRAFT - A (5 SEC PROC)		▽
ISP055	FLIGHT INSTRUMENT SCAN - A		▽
2J 42	MON EADI	5.00	
3L 02	MON VERTICAL SPEED	5.00	
3A 10	MONITOR AIRSPEED INDIC	5.00	
2K 16	MON EHSI DISPLAY	5.00	
4A 04	MANUALLY CONTROL A/C	5.00	
4B 09	ACTUATE THROTTLES TO ADJUST AIRSPEED	5.00	
MCA155	CONTROL AIRCRAFT - A (15 SEC PROC)		▽
ISP155	FLIGHT INSTRUMENT SCAN - C		▽
3A 14	MON AIRSPEED INDIC	15.00	
2K 16	MON EHSI DISPLAY	15.00	
4A 31	MANUALLY CONTROL A/C	15.00	
4B 09	ACTUATE THROTTLES TO ADJUST AIRSPEED	15.00	
2J 43	MON EADI	15.00	
3L 04	MON IVSI INDIC	15.00	

0. 50. 100. 150. 200. 250. 300.

UNSHIFTED

MISSION TIMELINE
 MISSION - DENVER BYRZMC APP/LN
 WITH HOLDING PTN
 CONFIGURATION - AFD SIMULATOR
 FLIGHT PHASE - DESCENT FROM BYERS
 TO HATKINS INTER-
 SECTION
 CREWMEMBER - PILOT

AUG 14, 1978



CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
2H 34	READ ALT ENG VALUE ON DIGITAL INDIC	1.00	I
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 30	MON ENG NO 2 EPR IND	0.44	I
BYR261	U 24 REACHS 200 KTS		I
BYR255	U 24 BEGINS STAR		I
ALTCDN	DESCENT TO 8000		I
	ACTUATE VCWS TO START DESCENT		I
3L 02	MON VERTICAL SPEED INDIC	10.00	I
3A 10	MONITOR AIRSPEED INDIC	10.00	I
2K 32	MON ALT/RNG SYMBOLS	10.00	I
4F 03	SET SPEED BRAKE LEVER TO FLT DETENT	3.20	I
4A 64	MANUALLY CONTROL A/C	10.00	I
3H 06	MON ALTIMETER	10.00	I
MCA120	CONTROL AIRCRAFT - H (120 SEC PROC)		I
ISP120	FLIGHT INSTRUMENT SCAN - H		I
4A 65	MANUALLY CONTROL A/C	120.00	I
4B 10	ACTUATE THROTTLES TO ADJUST AIRSPEED	120.00	I
2J 43	MON EADI	120.00	I
3L 03	MON VERTICAL SPEED INDIC	120.00	I
3A 11	MONITOR AIRSPEED INDIC	120.00	I
2K 15	MON EHSI DISPLAY	120.00	I
140023	REPORT 1000 FT TO LEVEL OFF		I
1P 11	MON VERBAL REPORT	1.70	I
MCA105	CONTROL AIRCRAFT - B (10 SEC PROC)		I
ISP105	FLIGHT INSTRUMENT SCAN - B		I
3L 02	MON VERTICAL SPEED INDIC	10.00	I
3A 10	MONITOR AIRSPEED INDIC	10.00	I
2K 14	MON EHSI DISPLAY	10.00	I
4A 64	MANUALLY CONTROL A/C	10.00	I
4B 09	ACTUATE THROTTLES TO ADJUST AIRSPEED	10.00	I
2J 42	MON EADI	10.00	I

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
MCA105	CONTROL AIRCRAFT - B (10 SEC PROC)		
ISP105	FLIGHT INSTRUMENT SCAN - B		
2K 14	MON EHSI DISPLAY	10.00	
4A 64	MANUALLY CONTROL A/C	10.00	
4B 89	ACTUATE THROTTLES TO ADJUST AIRSPEED	10.00	
2J 42	MON EADI	10.00	
3L 82	MON VERTICAL SPEED INDIC	10.00	
3A 10	MONITOR AIRSPEED INDIC	10.00	
BYR267	U 24 REACHES 8000		
ALTCUP	ACTUATE VCWS TO END DESCENT		
4A 64	MANUALLY CONTROL A/C	10.00	
3H 86	MON ALTIMETER	10.00	
3L 82	MON VERTICAL SPEED INDIC	10.00	
3A 10	MONITOR AIRSPEED INDIC	10.00	
2K 32	MON ALT/RNG SYMBOLS	10.00	
4F 81	SET SPD BRAKE LEVER TO DOWN	3.26	
MCA305	CONTROL AIRCRAFT - C (30 SEC PROC)		
ISP305	FLIGHT INSTRUMENT SCAN - E		
3L 82	MON VERTICAL SPEED INDIC	30.00	
3A 10	MONITOR AIRSPEED INDIC	30.00	
2K 14	MON EHSI DISPLAY	30.00	
4A 64	MANUALLY CONTROL A/C	30.00	
4B 10	ACTUATE THROTTLES TO ADJUST AIRSPEED	30.00	
2J 42	MON EADI	30.00	
170007	TUNE NAV RADIOS FOR MLS APPROACH.		
BYR278	U 24 CROSS WATKINS < 200 KTS < 8000, RE- CEIVE METER/SPACING INSTRUCTIONS		
BYR207	RECEIVE METER/SPACE INSTRUCTIONS		

220. 270. 320. 370. 420. 470. 520.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
HOGCH6	HEADING CHANGE PROC.		▽
3L 02	-CWS MON VERTICAL SPEED	10.00	□
1PBYRZ16	INDIC MSG- UNITED 24 TURN RIGHT HEADING 350 REDUCE TO APPROACH SPEED (150KTS)	6.00	□
4A 20	ACT FLT CONTROL TO CHANGE HDG	10.00	□
2K 14	MON EHSI DISPLAY	10.00	□
2K 33	MON CURVED TREND VECTOR SYMBOLS	10.00	□
AFDSPD	AIRSPEED CHANGE PROC		▽
MCA055	CONTROL AIRCRAFT - A (5 SEC PROC)		▽
ISP053	FLIGHT INSTRUMENT SCAN - A		▽
2K 16	MON EHSI DISPLAY	5.00	□
2H 47	ROTATE CAS ENG KNOB	2.45	□
4A 64	MANUALLY CONTROL A/C	5.00	□
4B 09	ACTUATE THROTTLES TO ADJUST AIRSPEED	5.00	□
2J 42	MON EADI	5.00	□
3L 02	MON VERTICAL SPEED	5.00	□
3A 10	INDIC MONITOR AIRSPEED	5.00	□
2H 48	INDIC READ CAS ENG VALUE	1.04	□
1P 02	ON DIGITAL INDIC MON VERBAL REPORT	3.00	□

220. 270. 320. 370. 420. 470. 520.

UNSHIFTED

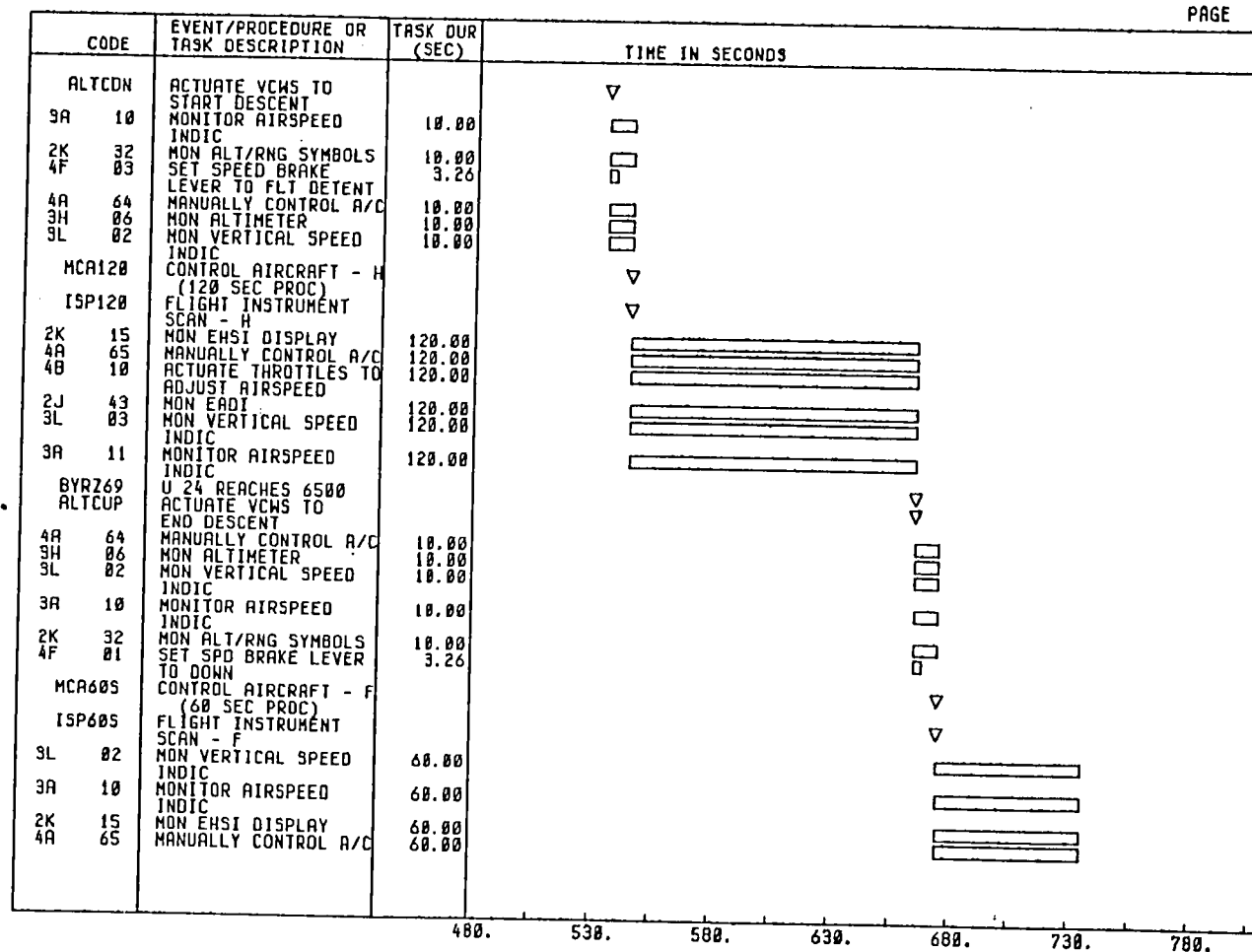
MISSION TIMELINE
 MISSION - DENVER BYRZMC APP/LN
 WITH HOLDING PTN
 CONFIGURATION - AFD SIMULATOR
 FLIGHT PHASE - COURSE DEVIATION FOR
 SPACING - WATKINS TO
 THE GATE
 CREWMEMBER - PILOT

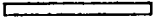
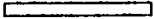



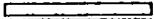
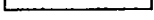







AUG 14, 1978

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
MCA205	CONTROL AIRCRAFT - A (20 SEC PROC)		▼
ISP205	FLIGHT INSTRUMENT SCAN - D		▼
4A 31	MANUALLY CONTROL A/C	20.00	▬
4B 09	ACTUATE THROTTLES TO ADJUST AIRSPEED	20.00	▬
2J 43	MON EADI	20.00	▬
9L 04	MON IVSI INDIC	20.00	▬
9A 14	MON AIRSPEED INDIC	20.00	▬
2K 16	MON EHSI DISPLAY	20.00	▬
MCA055	CONTROL AIRCRAFT - A (5 SEC PROC)		▼
ISP055	FLIGHT INSTRUMENT SCAN - A		▼
2J 42	MON EADI	5.00	□
9L 02	MON VERTICAL SPEED INDIC	5.00	□
3A 10	MONITOR AIRSPEED INDIC	5.00	□
2K 16	MON EHSI DISPLAY	5.00	□
4A 64	MANUALLY CONTROL A/C	5.00	□
4B 09	ACTUATE THROTTLES TO ADJUST AIRSPEED	5.00	□
BYR263	SET FLAPS TO POS 5		▼
160017	SET FLAPS TO FLAPS 5		▼
160018	FLAP SET PROCEDURE		▼
MCA105	CONTROL AIRCRAFT - B (10 SEC PROC)		▼
ISP105	FLIGHT INSTRUMENT SCAN - B		▼
3L 02	MON VERTICAL SPEED INDIC	10.00	□
9A 10	MONITOR AIRSPEED INDIC	10.00	□
2K 14	MON EHSI DISPLAY	10.00	□
1P160061	CALL OUT - [FLAPS 5]	0.70	I

400. 530. 580. 630. 680. 730. 780.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
4A 64	MANUALLY CONTROL A/C	10.00	□
4B 09	ACTUATE THROTTLES TO ADJUST AIRSPEED	10.00	□
2J 42	MON EADI	10.00	□
1P 10	MON VERBAL REPORT	0.70	I
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 30	MON ENG NO 2 EPR IND	0.44	I
MCA105	CONTROL AIRCRAFT - B (10 SEC PROC)		▽
ISP105	FLIGHT INSTRUMENT SCAN - B		▽
160025	SET FLAPS TO FLAPS 15		▽
160010	FLAP SET PROCEDURE		▽
2J 42	MON EADI	10.00	□
3L 02	MON VERTICAL SPEED INDIC	10.00	□
3A 10	MONITOR AIRSPEED INDIC	10.00	□
2K 14	MON EHSI DISPLAY	10.00	□
1P10002	CALL OUT - (FLAPS 15)	0.70	I
4A 64	MANUALLY CONTROL A/C	10.00	□
4B 09	ACTUATE THROTTLES TO ADJUST AIRSPEED	10.00	□
BYR200	RECEIVE INSTRUCTIONS TO PROCEED DIRECT TO THE GATE		▽
AFDALI	ALTITUDE CHANGE PROC		▽
2H 33	ROTATE ALT ENG KNOB	2.47	□
1PBYR218	MSG- UNITED 24, CLEAR DIRECT TO APRCH GATE, CONTACT TOWER AT OM 120.0	6.00	□
1P 10	MON VERBAL REPORT	0.70	I
2H 34	READ ALT ENG VALUE ON DIGITAL INDIC	1.06	I
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 30	MON ENG NO 2 EPR IND	0.44	I
HOGCHG	HEADING CHANGE PROC. -CHS		▽
3L 02	MON VERTICAL SPEED INDIC	10.00	□
4A 28	ACT FLT CONTROL TO CHANGE HDG	10.00	□
2K 14	MON EHSI DISPLAY	10.00	□
2K 33	MON CURVED TREND VECTOR SYMBOLS	10.00	□



CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
4B 10	ACTUATE THROTTLES TO ADJUST AIRSPEED	60.00	
2J 42	MON EADI	60.00	
MCA609	CONTROL AIRCRAFT - F (60 SEC PROC)		▽
ISP605	FLIGHT INSTRUMENT SCAN - F		▽
2K 15	MON EHSI DISPLAY	60.00	
4A 65	MANUALLY CONTROL A/C	60.00	
4B 10	ACTUATE THROTTLES TO ADJUST AIRSPEED	60.00	
2J 42	MON EADI	60.00	
3L 02	MON VERTICAL SPEED	60.00	
3A 10	MONITOR AIRSPEED	60.00	
MCA105	CONTROL AIRCRAFT - B (10 SEC PROC)		▽
ISP105	FLIGHT INSTRUMENT SCAN - B		▽
4B 09	ACTUATE THROTTLES TO ADJUST AIRSPEED	10.00	
2J 42	MON EADI	10.00	
3L 02	MON VERTICAL SPEED	10.00	
3A 10	MONITOR AIRSPEED	10.00	
2K 14	MON EHSI DISPLAY	10.00	
4A 64	MANUALLY CONTROL A/C	10.00	

400. 530. 580. 630. 680. 730. 780.

UNSHIFTED

MISSION TIMELINE
 MISSION - DENVER BYRZMC APP/LN
 WITH HOLDING PTN
 CONFIGURATION - AFD SIMULATOR
 FLIGHT PHASE - FINAL APPROACH TO
 FROM THE GATE THRU
 TOUCHDOWN
 CREWMEMBER - PILOT

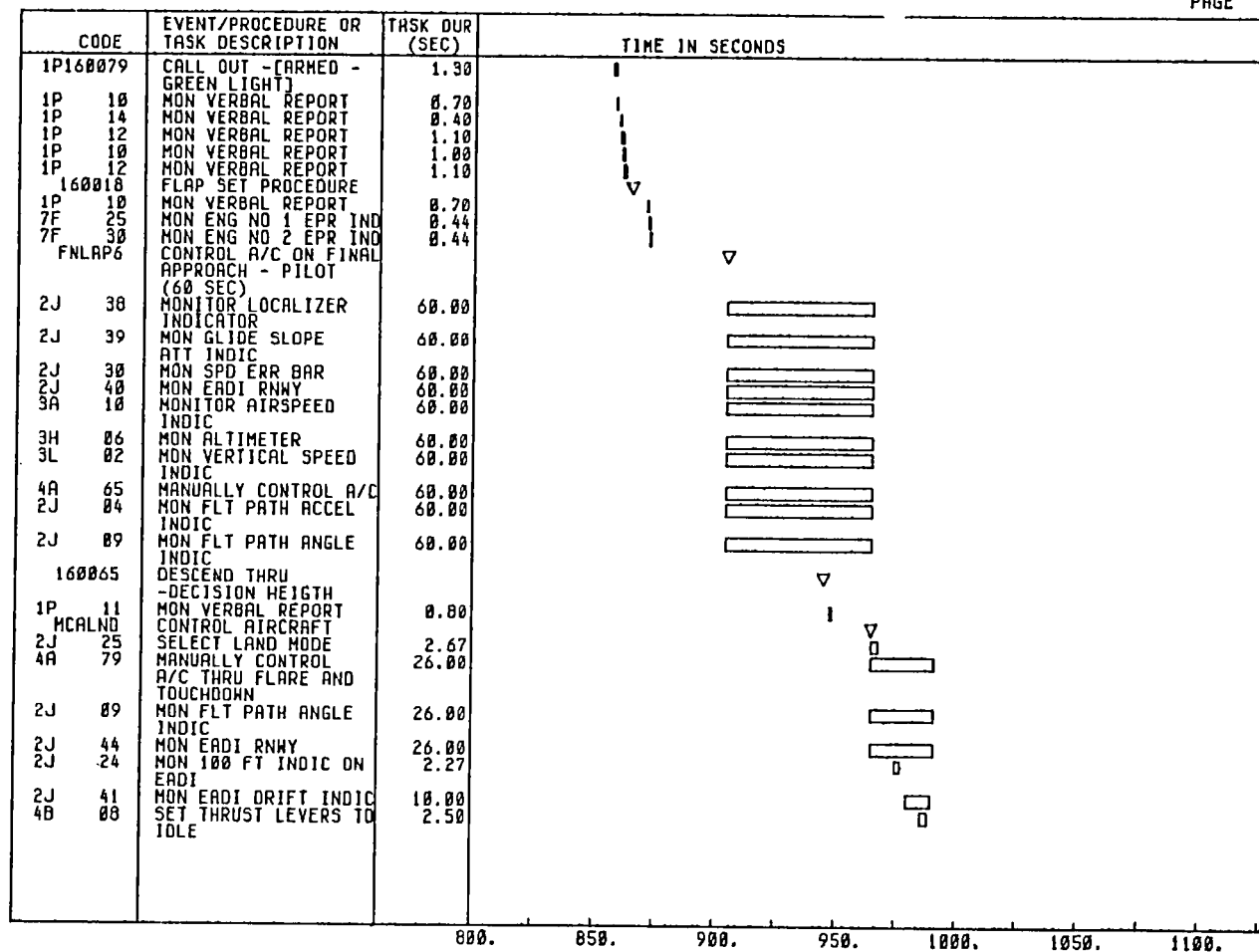
AUG 14, 1978

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
BYR158	U 24 CROSSES GATE AT 6500 AND 150 KTS, SLOWS TO 120KTS, FLAPS ON SCHED		▽
AFD5P0	AIRSPED CHANGE PROC		▽
MCA305	CONTROL AIRCRAFT - C (30 SEC PROC)		▽
ISP305	FLIGHT INSTRUMENT SCAN - E		▽
160053	SET FLAPS TO FLAPS 25		▽
160010	FLAP SET PROCEDURE		▽
4A 04	MANUALLY CONTROL A/C	30.00	▬
4B 10	ACTUATE THROTTLES TO ADJUST AIRSPEED	30.00	▬
2J 42	MON EADI	30.00	▬
3L 02	MON VERTICAL SPEED	30.00	▬
3A 10	INDIC MONITOR AIRSPEED	30.00	▬
2K 14	INDIC MON EHSI DISPLAY	30.00	▬
1P160070	CALL OUT -[FLAPS 25]	0.70	I
2H 47	ROTATE CAS ENG KNOB	2.45	0
2H 48	READ CAS ENG VALUE	1.04	I
1P 10	ON DIGITAL INDIC MON VERBAL REPORT	0.70	I
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 30	MON ENG NO 2 EPR IND	0.44	I
160059	CROSS RWY XX OUTER MARKER		▽
LNDCLR	CONTACT TOWER FOR FINAL LANDING CLEAR- ANCE		▽
3V 06	MON LOC ANNUN LT GREEN	1.21	0
3V 09	MON GLIDE SLOPE ANNUN LT GREEN	1.21	0

800. 850. 900. 950. 1000. 1050. 1100.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
SV 11	MONITOR OUTER MARKER LT ON AND AUDIBLE SIGNAL	0.72	I
3N 03	START ELAPSED TIME INDIC	2.10	0
1P160075	CALL OUT - [GEAR DOWN AND LANDING CHECK-LIST]	1.00	0
160057	SET FLAPS TO FLAPS 40		▽
160010	FLAP SET PROCEDURE		▽
FNLAP6	CONTROL A/C ON FINAL APPROACH - PILOT (60 SEC)		▽
3A 10	MONITOR AIRSPEED INDIC	60.00	=====
3H 06	MON ALTITUDE	60.00	=====
3L 02	MON VERTICAL SPEED INDIC	60.00	=====
1P160073	CALL OUT - [FLAPS 40]	0.70	I
4A 65	MANUALLY CONTROL A/C	60.00	=====
2J 04	MON FLT PATH ACCEL INDIC	60.00	=====
2J 09	MON FLT PATH ANGLE INDIC	60.00	=====
2J 38	MONITOR LOCALIZER INDICATOR	60.00	=====
2J 39	MON GLIDE SLOPE ATT INDIC	60.00	=====
2J 30	MON SPD ERR BAR	60.00	=====
2J 40	MON EADI RNWY	60.00	=====
1B 19	MON VHF-2 COMM AUDIO	7.00	=====
1PLNDCL4	MON RADIO COMM - [UNITED 24, DENVER TOWER, ROGER, CLEAR TO LAND RUNWAY TWO SIX, WIND TWO ONE ZERO DEGREES AT ZERO NINER.]	4.00	=====
1PLNDCL5	SIX, WIND TWO ONE ZERO DEGREES AT ZERO NINER.]	3.00	0
1P 10	MON VERBAL REPORT	0.70	I
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 30	MON ENG NO 2 EPR IND	0.44	I
160062	LANDING CHECKLIST		▽
1P 10	MON VERBAL REPORT	0.60	I
1P 14	MON VERBAL REPORT	0.40	I
1P 10	MON VERBAL REPORT	0.70	I

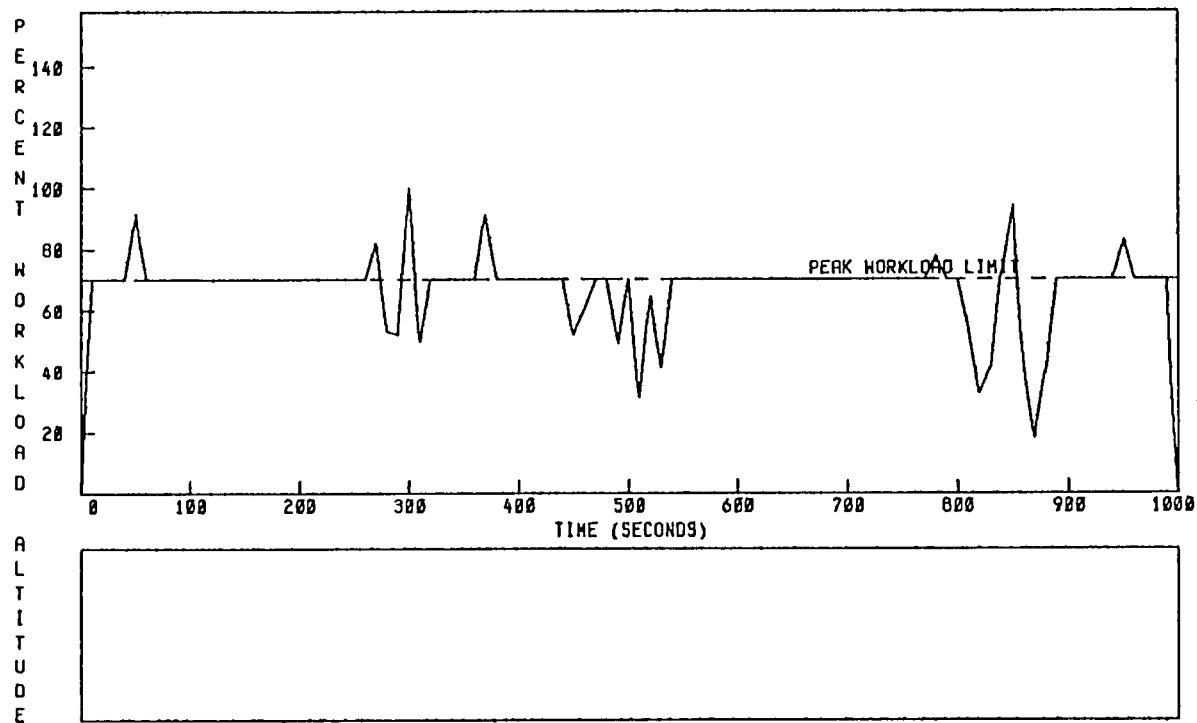
800. 850. 900. 950. 1000. 1050. 1100.

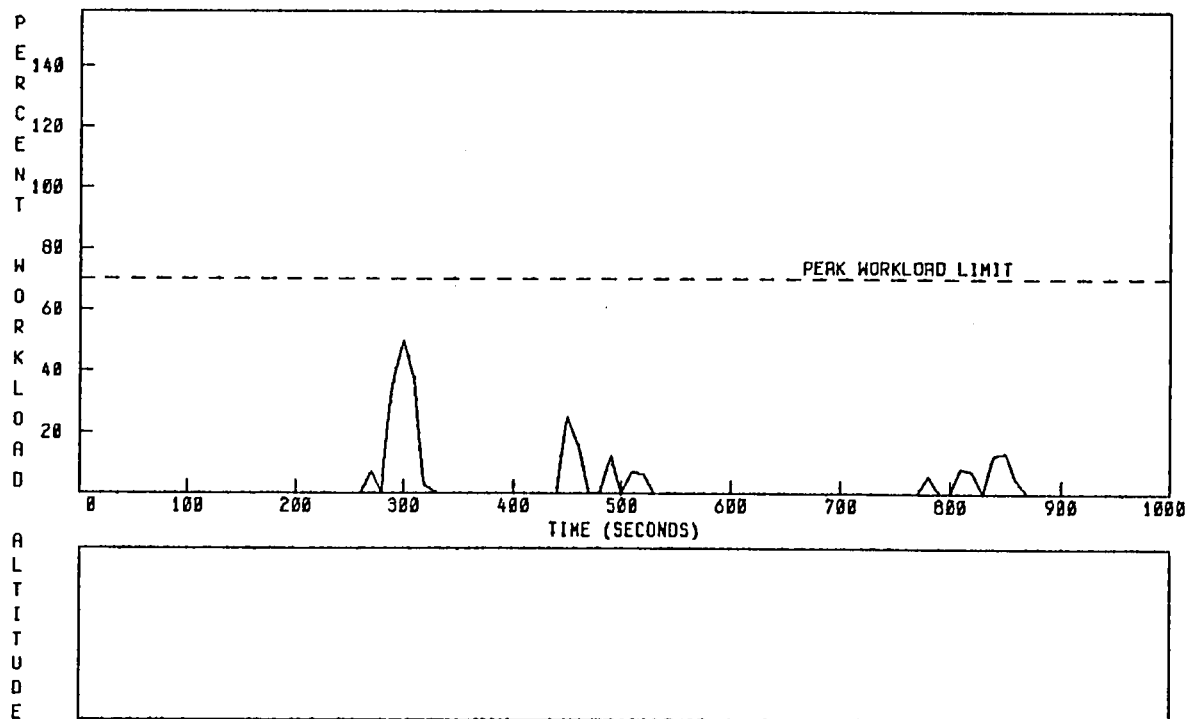


UNSHIFTED
AUG 14, 1978

WORKLOAD HISTOGRAM
CREWMEMBER- COPILOT
CHANNEL- TOTAL VISION
CONFIGURATION- AFD SIMULATOR

MISSION
DENVER BYRZMC APP/LN
WITH HOLDING PTN

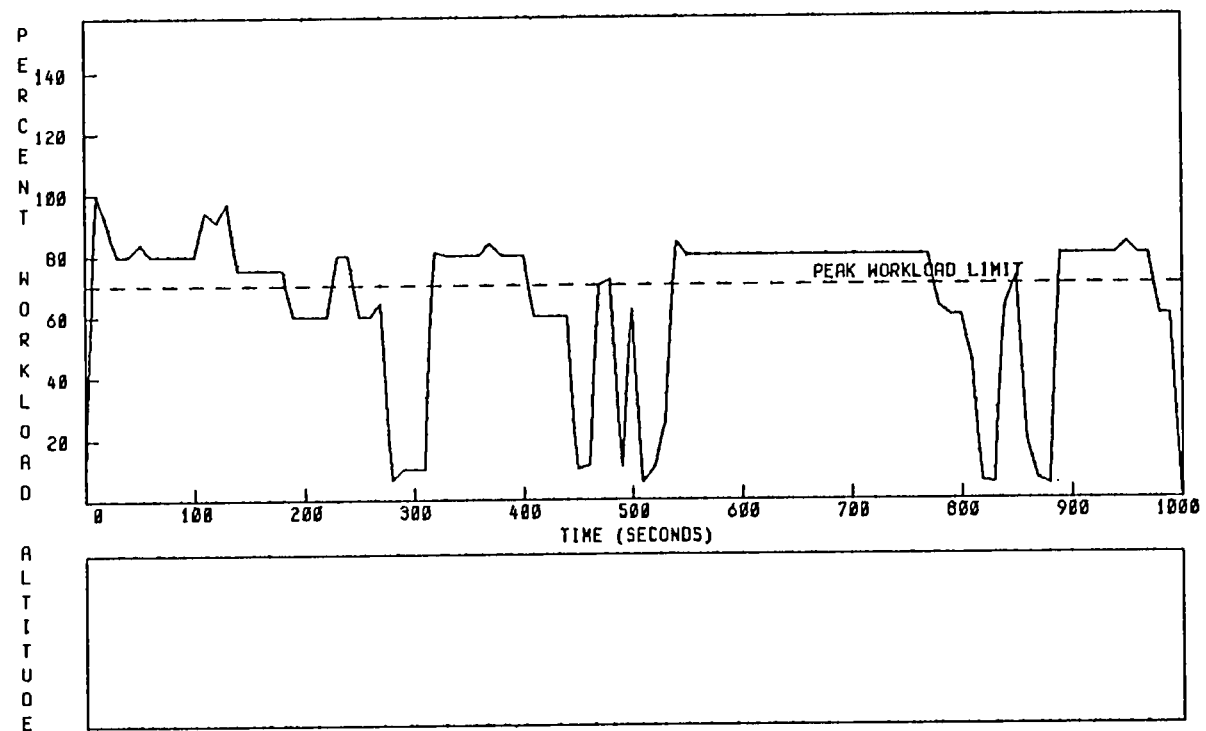




UNSHIFTED
AUG 14, 1978

WORKLOAD HISTOGRAM
CREWMEMBER- COPILOT
CHANNEL- COGNITION
CONFIGURATION- AFD SIMULATOR

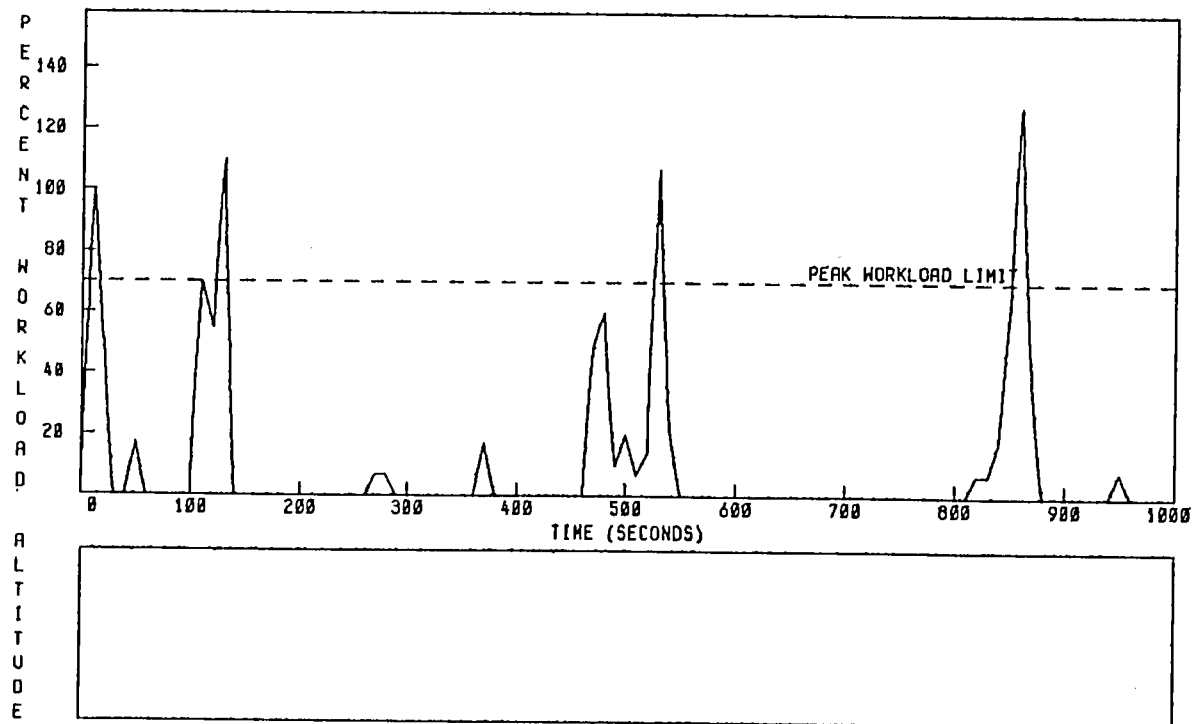
MISSION
DENVER BYRZMC APP/LN
WITH HOLDING PTTN



UNSHIFTED
AUG 14, 1978

WORKLOAD HISTOGRAM
CREWMEMBER- COPILOT
CHANNEL- TOTAL COMMUNICATION
CONFIGURATION- AFD SIMULATOR

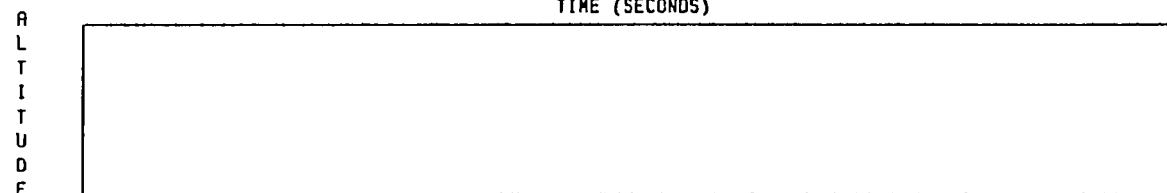
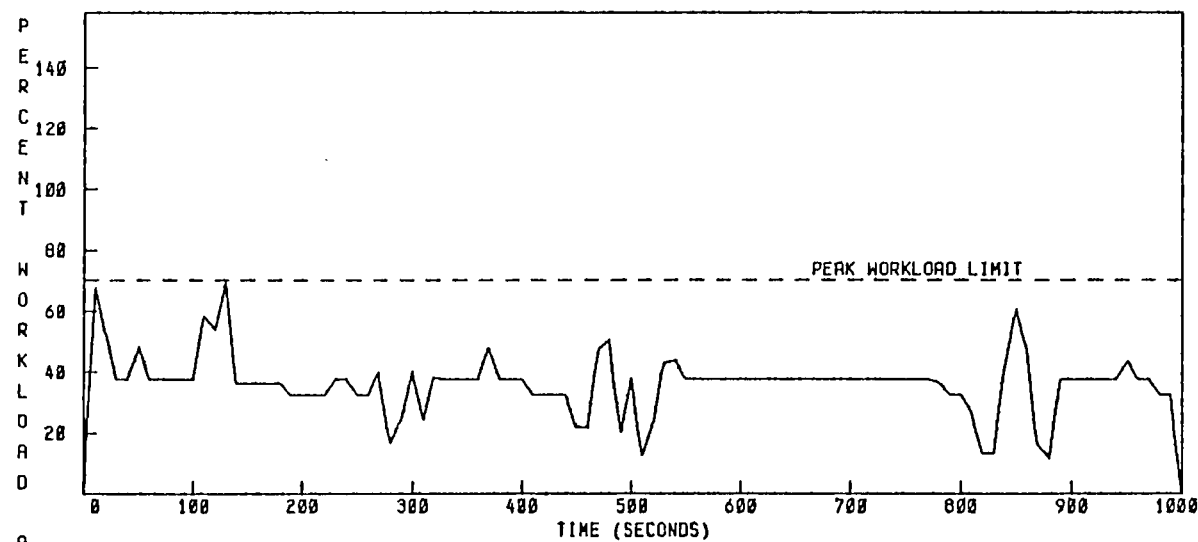
MISSION
DENVER BYRZMC APP/LN
WITH HOLDING PTTN



UNSHIFTED
AUG 14, 1978

WORKLOAD HISTOGRAM
CREWMEMBER- COPILOT
CHANNEL- WEIGHTED CHANNEL AVERAGE
CONFIGURATION- AFD SIMULATOR

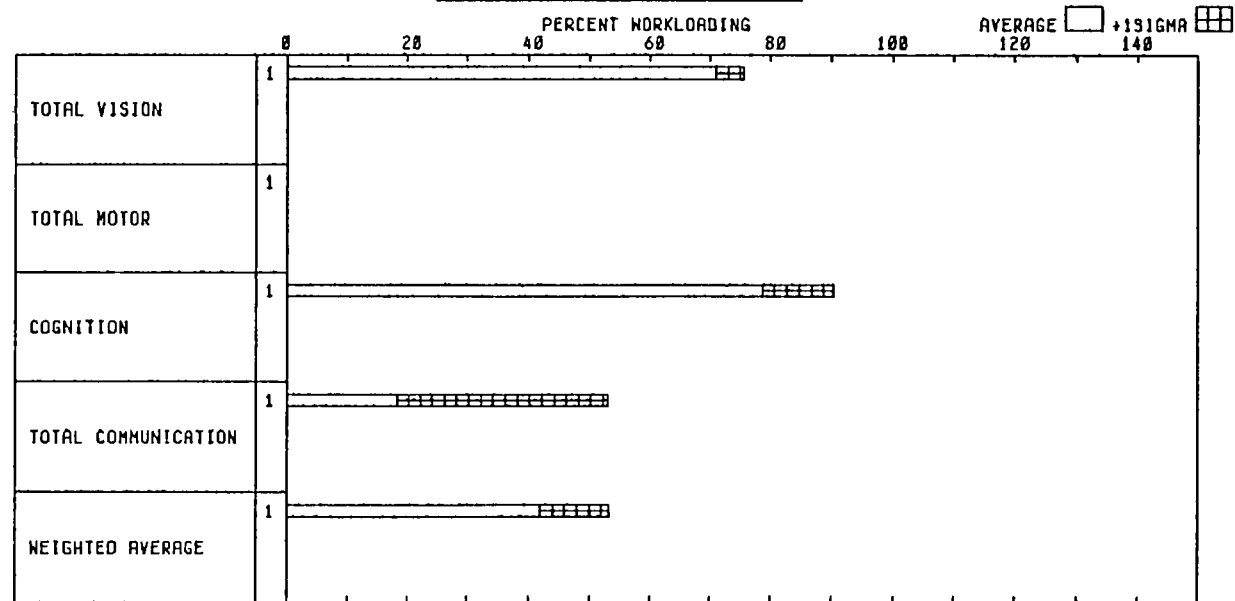
MISSION
DENVER BYRZMC APP/LN
WITH HOLDING PTN



UNSHIFTED

WORKLOAD SUMMARY CREWMEMBER - COPILOT

AUG 14, 1978



MISSION
1 DENVER BYRZMC APP/LN
WITH HOLDING PTTN

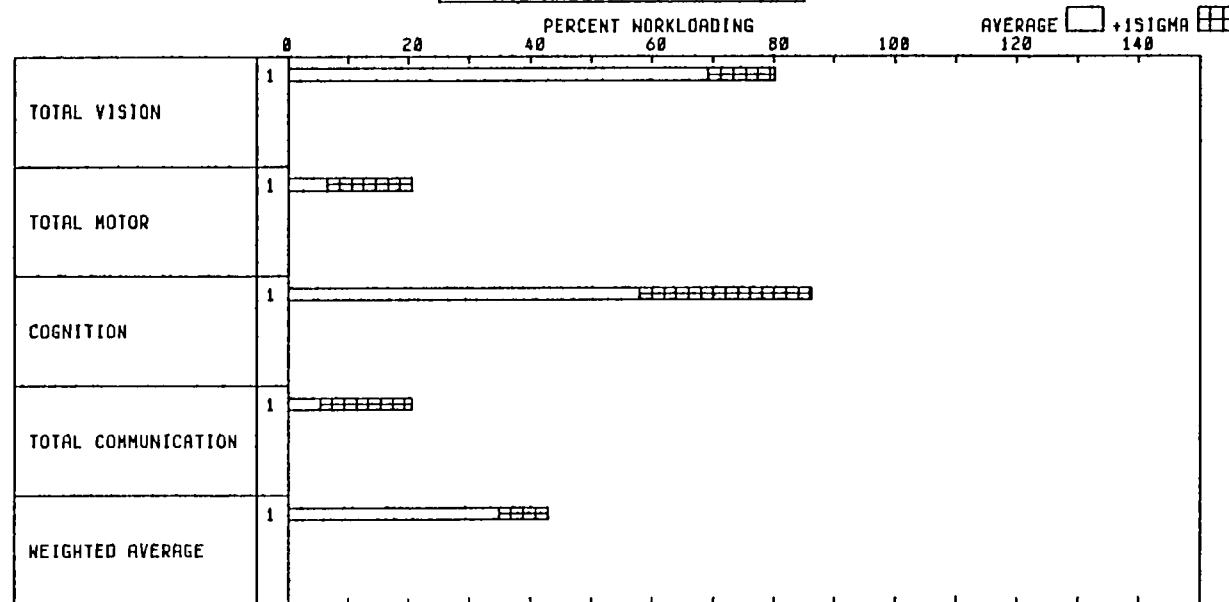
CONFIGURATION
AFD SIMULATOR

FLIGHT PHASE
BYERS APPROACH TO
LANDING FROM ENROUTE
CRUISE

UNSHIFTED

WORKLOAD SUMMARY
CREWMEMBER - COPILOT

AUG 14, 1978



MISSION
1 DENVER BYRZMC APP/LN
WITH HOLDING PTTN

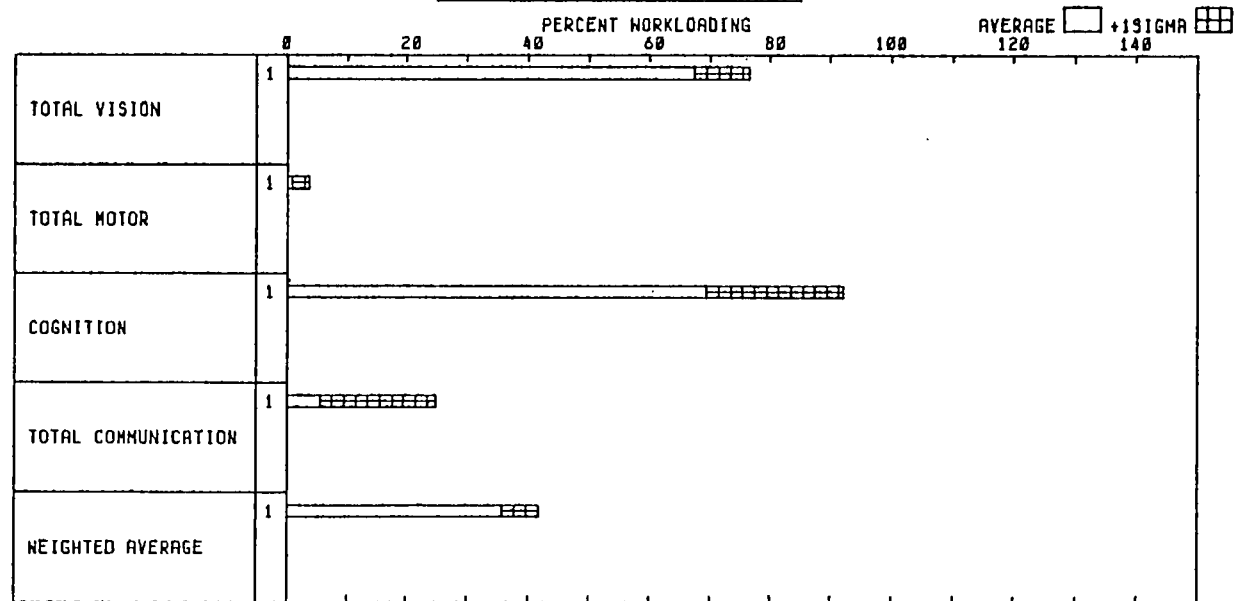
CONFIGURATION
AFD SIMULATOR

FLIGHT PHASE
DESCENT FROM BYERS
TO WATKINS INTER-
SECTION

UNSHIFTED

WORKLOAD SUMMARY
CREWMEMBER - COPILOT

AUG 14, 1978



MISSION
1 DENVER BYRZMC APP/LN
WITH HOLDING PTN

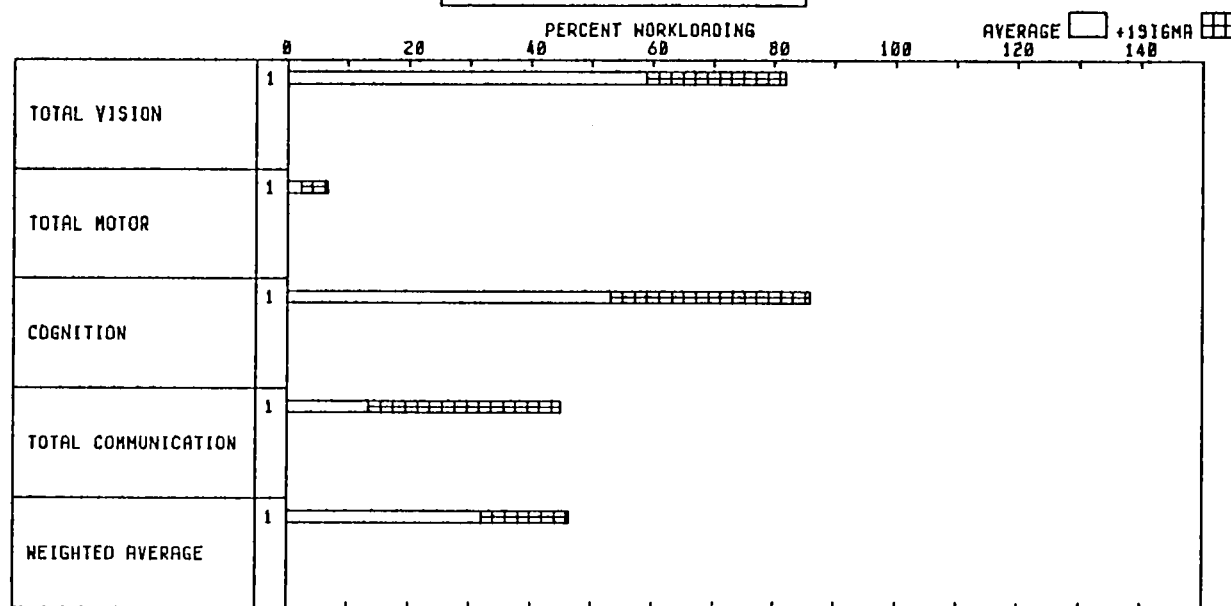
CONFIGURATION
AFD SIMULATOR

FLIGHT PHASE
COURSE DEVIATION FOR
SPACING - WATKINS TO
THE GATE

[]

WORKLOAD SUMMARY
CREWMEMBER - COPILOT

AUG 14, 1978



MISSION
1 DENVER BYRZMC APP/LN
WITH HOLDING PTN

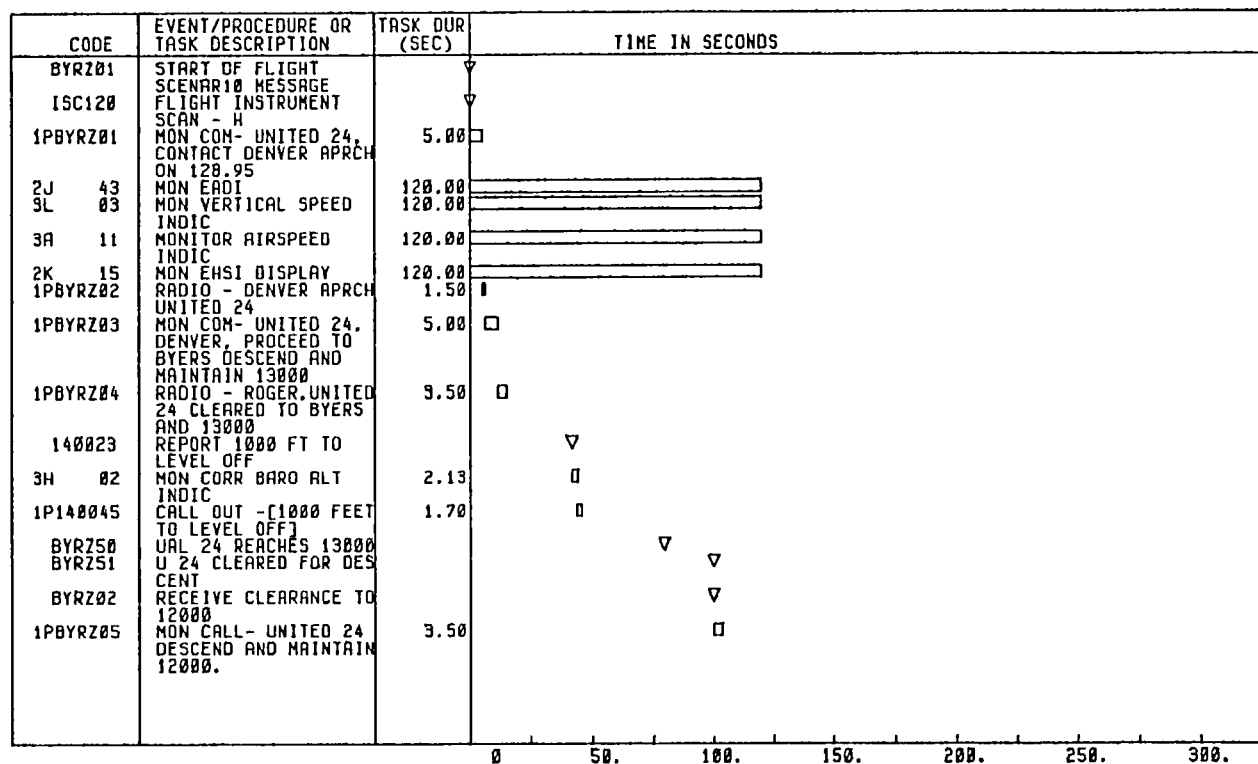
CONFIGURATION
AFD SIMULATOR

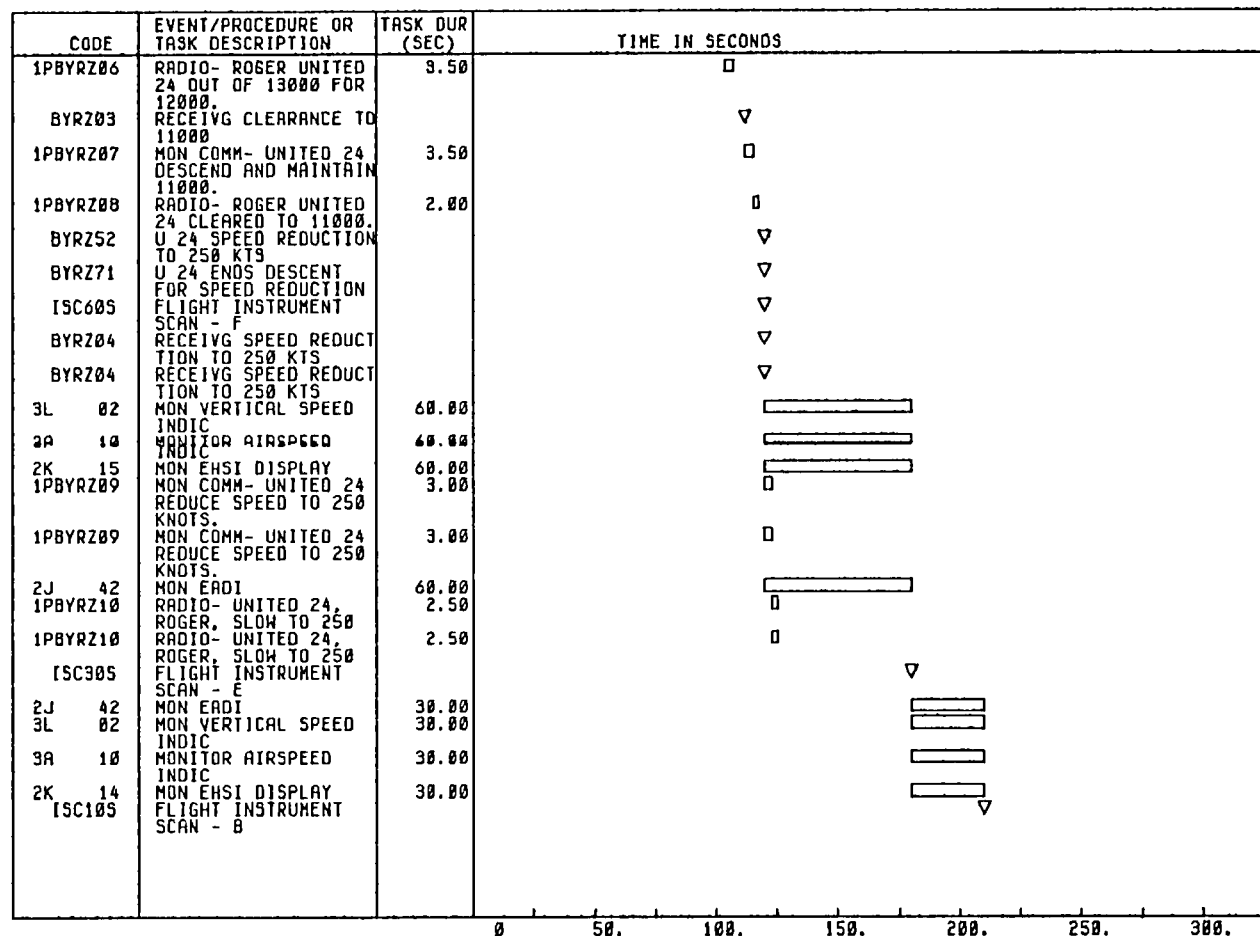
FLIGHT PHASE
FINAL APPROACH TO
FROM THE GATE THRU
TOUCHDOWN

UNSHIFTED

MISSION TIMELINE
 MISSION - DENVER BYRZMC APP/LN
 WITH HOLDING PTN
 CONFIGURATION - AFD SIMULATOR
 FLIGHT PHASE - BYERS APPROACH TO
 LANDING FROM ENROUTE
 CRUISE
 CREWMEMBER - COPILOT

AUG 14, 1978





CODE		EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
3L	02	MON VERTICAL SPEED INDIC	10.00	<input type="checkbox"/>
3A	10	MONITOR AIRSPEED INDIC	10.00	<input type="checkbox"/>
2K	14	MON EHSI DISPLAY	10.00	<input type="checkbox"/>
2J	42	MON EADI	10.00	<input type="checkbox"/>

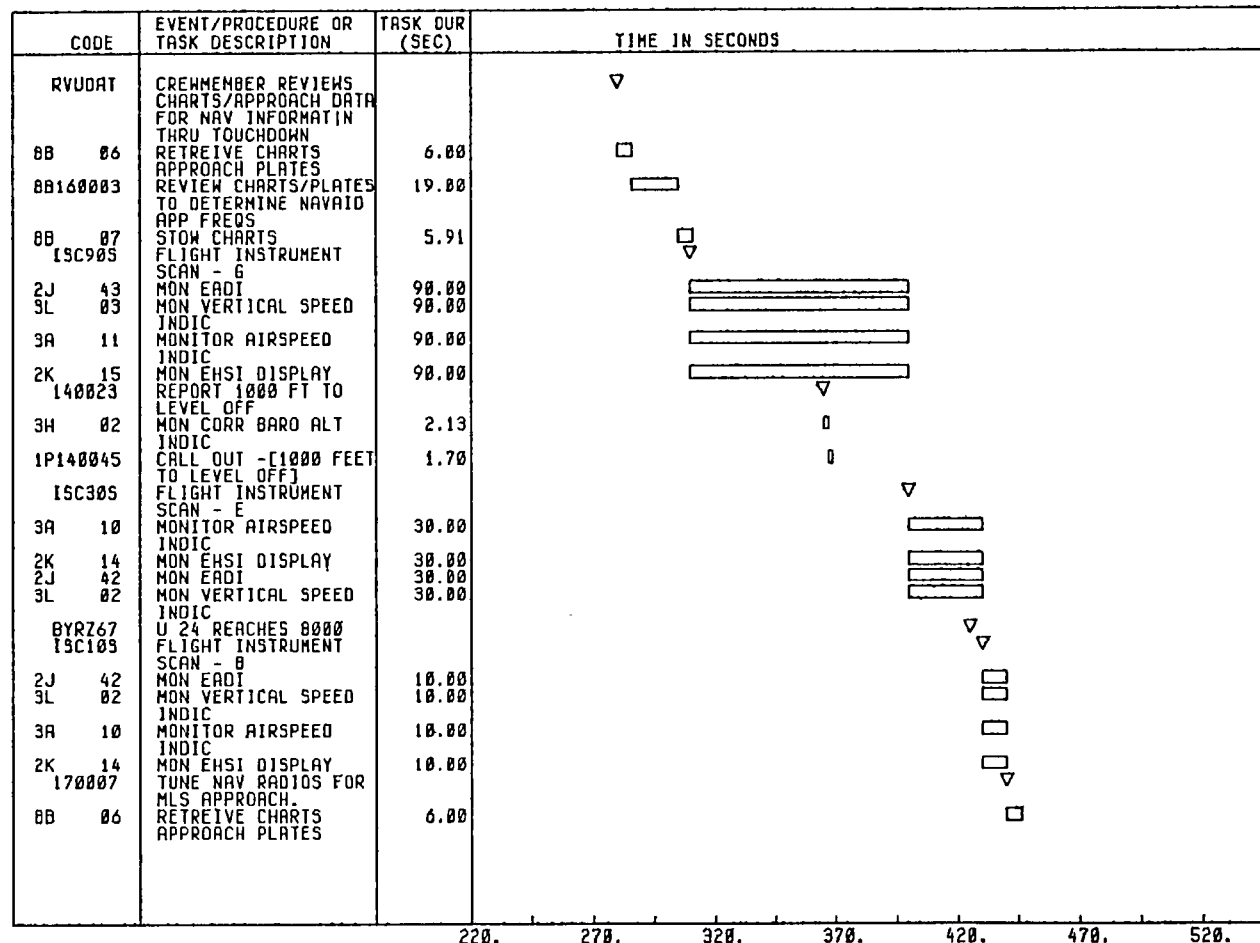
UNSHIFTED

MISSION TIMELINE
 MISSION - DENVER BYRZMC APP/LN
 WITH HOLDING PTTN
 CONFIGURATION - AFD SIMULATOR
 FLIGHT PHASE - DESCENT FROM BYERS
 TO HATKINS INTER-
 SECTION
 CREWMEMBER - COPILOT

AUG 14, 1978

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
BYRZ53	U 24 SPEED REDUCTION TO 200 KTS		▽
ISC205	FLIGHT INSTRUMENT SCAN - D		▽
2J 43	MON EADI	20.00	▬
3L 04	MON IVSI INDIC	20.00	▬
3A 14	MON AIRSPEED INDIC	20.00	▬
2K 16	MON EHSI DISPLAY	20.00	▬
BYRZ54	U 24 CROSSES BYERS INTERSECTION < 11000		▽
ISC305	FLIGHT INSTRUMENT SCAN - E		▽
2K 14	MON EHSI DISPLAY	30.00	▬
2J 42	MON EADI	30.00	▬
3L 02	MON VERTICAL SPEED INDIC	30.00	▬
3A 10	MONITOR AIRSPEED INDIC	30.00	▬
160011	SET FLAPS TO FLAPS 1		▽
1P 10	MON VERBAL REPORT	0.70	I
4E 07	SET FLAP CONT LEVER TO FLAPS 1	2.69	I
4E 15	MONITOR FLAP POSITION INDICATOR	2.23	I
4N 03	MON LE FLAPS-IN- TRANSIT LT ON	1.17	I
4N 04	MON LE FLAPS-IN- TRANSIT LT OFF	1.17	I
4E 16	CHECK FLAP LEVER AND POSITION INDIC AGREE	2.50	I
1P160058	CALL OUT - [FLAPS 1]	0.70	I
BYRZ61	U 24 REACHS 200 KTS		▽
BYRZ55	U 24 BEGINS STAR DESCENT TO 8000		▽

220. 270. 320. 370. 420. 470. 520.



CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
88160003	REVIEW CHARTS/PLATES TO DETERMINE NAVRID APP FREQS	5.00	
5U 01	MON NAV-1 FREQ INDIC	5.00	
5U 02	SET NAV-1 FREQ - WHOLE NO.S	3.00	
5U 03	SET NAV-1 FREQ - FRACTIONS	2.00	
ISC105	FLIGHT INSTRUMENT SCAN - 0		
3A 10	MONITOR AIRSPEED INDIC	10.00	
2K 14	MON EHSI DISPLAY	10.00	
2J 42	MON EADI	10.00	
3L 02	MON VERTICAL SPEED INDIC	10.00	
BYRZ70	U 24 CROSS WATKINS < 200 KTS < 8000. RECEIVE METER/SPACING INSTRUCTIONS		
BYRZ07	RECEIVE METER/SPACE INSTRUCTIONS		
1PBZR16	MSG- UNITED 24 TURN RIGHT HEADING 350 REDUCE TO APPROACH SPEED (150KTS)	6.00	
ISC105	FLIGHT INSTRUMENT SCAN - 0		
3L 02	MON VERTICAL SPEED INDIC	10.00	
3A 10	MONITOR AIRSPEED INDIC	10.00	
2K 14	MON EHSI DISPLAY	10.00	
2J 42	MON EADI	10.00	
1PBZR17	RADIO- UNITED 24. ROGER, RIGHT TO 350 SLOW TO APPROACH SPD	5.00	
5V 01	MON NAV-2 FREQ INDIC	4.91	
5V 02	SET NAV-2 FREQ - WHOLE NO.S	2.93	
5V 03	SET NAV-2 FREQ - FRACTIONS	1.90	
1P170026	CALL OUT - (RNWH MLS FREQ ON NAV 1 AND NAV 2)	3.00	

220. 270. 320. 370. 420. 470. 520.

UNSHIFTED

MISSION TIMELINE
 MISSION - DENVER BYRZMC APP/LN
 WITH HOLDING PTTN
 CONFIGURATION - AFD SIMULATOR
 FLIGHT PHASE - COURSE DEVIATION FOR
 SPACING - WATKINS TO
 THE GATE
 CREWMEMBER - COPILOT

AUG 14, 1978

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
ISC105	FLIGHT INSTRUMENT SCAN - 8		▽
2J 42	MON EADI	10.00	□
3L 02	MON VERTICAL SPEED	10.00	□
9A 10	INDIC MONITOR AIRSPEED	10.00	□
2K 14	INDIC MON EHSI DISPLAY	10.00	□
BYR263	SET FLAPS TO POS 5		▽
160017	SET FLAPS TO FLAPS 5		▽
160018	FLAP SET PROCEDURE		▽
1P 10	MON VERBAL REPORT	0.70	↓
4E 09	SET FLAP CONT LEVER TO FLAPS 5	2.69	□
4N 03	MON LE FLAPS-IN- TRANSIT LT ON	1.17	↓
4E 15	MONITOR FLAP POSITION INDICATOR	2.23	□
4E 16	CHECK FLAP LEVER AND POSITION INDIC AGREE	2.50	□
4N 04	MON LE FLAPS-IN- TRANSIT LT OFF	1.17	↓
1P160061	CALL OUT - [FLAPS 5]	0.70	↓
160025	SET FLAPS TO FLAPS 15		▽
160018	FLAP SET PROCEDURE		▽
1P 10	MON VERBAL REPORT	0.70	↓
4E 11	SET FLAP CONT LEVER TO FLAPS 15	2.46	□
4N 03	MON LE FLAPS-IN- TRANSIT LT ON	1.17	↓
4E 15	MONITOR FLAP POSITION INDICATOR	2.23	□
BYR208	RECEIVE INSTRUCTIONS TO PROCEED DIRECT TO THE GATE		▽
I			

400. 530. 580. 630. 680. 730. 780.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1PBYRZ18	MSG- UNITED 24, CLEAR DIRECT TO APREH GATE, CONTACT TOWER AT 0M 120.0	6.00	□
4E 16	CHECK FLAP LEVER AND POSITION INDIC AGREE	2.50	0
4N 04	MON LE FLAPS-IN-TRANSIT LT OFF	1.17	I
1P160062	CALL OUT -[FLAPS 15]	0.70	I
1PBYRZ19	RADIO- ROGER UNITED 24 CLEARED DIRECT TO THE GATE, TOWER AT 0M 120.0	6.00	□
ISC120	FLIGHT INSTRUMENT SCAN - H		▽
2K 15	MON EHSI DISPLAY	120.00	
2J 43	MON EADI	120.00	
3L 03	MON VERTICAL SPEED INDIC	120.00	
3A 11	MONITOR AIRSPEED INDIC	120.00	
ISC120	FLIGHT INSTRUMENT SCAN - H		▽
2J 43	MON EADI	120.00	
3L 03	MON VERTICAL SPEED INDIC	120.00	
3A 11	MONITOR AIRSPEED INDIC	120.00	
2K 15	MON EHSI DISPLAY	120.00	
BYRZ69	U 24 REACHES 6500		▽
ISC903	FLIGHT INSTRUMENT SCAN - E		▽
3A 10	MONITOR AIRSPEED INDIC	30.00	
2K 14	MON EHSI DISPLAY	30.00	
2J 42	MON EADI	30.00	
3L 02	MON VERTICAL SPEED INDIC	30.00	
160045	ANNUNCIATOR RECALL ACTUATE ANNUN PNL RECALL SW		▽
7A 28	MON ALL ANNUN LTS	2.28	□
7A 36	FLIGHT INSTRUMENT SCAN - A	0.53	I
ISC055	FLIGHT INSTRUMENT SCAN - A		▽
2J 42	MON EADI	5.00	
3L 02	MON VERTICAL SPEED INDIC	5.00	□

400. 530. 580. 630. 680. 730. 780.

CODE		EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
3A	10	MONITOR AIRSPEED INDIC	5.00	
2K	16	MON EHSI DISPLAY	5.00	

MISSION TIMELINE
MISSION - DENVER BYRZMC APP/LN
WITH HOLDING PTN
CONFIGURATION - AFD SIMULATOR
FLIGHT PHASE - FINAL APPROACH TO
FROM THE GATE THRU
TOUCHDOWN
CREWMEMBER - COPILOT

AUG 14, 1978

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
BYRZ58	U 24 CROSSES GATE AT 6500 AND 150 KTS, SLOWS TO 120KTS, FLAPS ON SCHED		▽
160060 4D 03	EXTEND LANDING GEAR SET LANDING GEAR LEVER TO DOWN POSITION	3.27	▽ □
4D 05	MONITOR NOSE GEAR DOWN AND LOCKED LT ON	0.54	I
4D 09	MONITOR LEFT/RT GEAR DOWN AND LOCKED LT ON	0.54	I
160053 25	SET FLAPS TO FLAPS		▽
160018 1P 10	FLAP SET PROCEDURE MON VERBAL REPORT	0.70	▽ I
4E 12	SET FLAP CONT LEVER TO FLAPS 25	2.90	□
4N 03	MON LE FLAPS-IN- TRANSIT LT ON	1.17	I
4E 15	MONITOR FLAP POSITION INDICATOR	2.23	□
4E 16	CHECK FLAP LEVER AND POSITION INDIC AGREE	2.50	□
4N 04	MON LE FLAPS-IN- TRANSIT LT OFF	1.17	I
1P160070 1SC105	CALL OUT - (FLAPS 25) FLIGHT INSTRUMENT SCAN - B	0.70	I ▽
2J 42	MON EADI	10.00	□
3L 02	MON VERTICAL SPEED INDIC	10.00	□
3A 10	MONITOR AIRSPEED INDIC	10.00	□
2K 14	MON EHSI DISPLAY	10.00	□

800. 850. 900. 950. 1000. 1050. 1100.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
160059	CROSS RMY XX OUTER MARKER		▽
LNDCLR	CONTACT TOWER FOR FINAL LANDING CLEARANCE		▽
1B 05	SET VHF-2 COMM TFR SW TO LEFT	2.39	□
1P 13	MON VERBAL REPORT	1.80	□
1B 17	COMM VIA VHF-2	5.00	□
1B 25	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	5.00	□
ISC10S	FLIGHT INSTRUMENT SCAN - 8		▽
2K 14	MON EHSI DISPLAY	10.00	□
2J 42	MON EADI	10.00	□
3L 02	MON VERTICAL SPEED INDIC	10.00	□
3A 10	MONITOR AIRSPEED INDIC	10.00	□
1PLNDCL2	RADIO COMM-[DENVER TOWER, THIS IS U 24 OVER THE GATE INBOUND FOR LNDNG SET FLAPS TO FLAPS 40]	4.00	□
160057	FLAP SET PROCEDURE		▽
160010	MON VERBAL REPORT	0.70	▽
1PLNDCL3	ZERO EIGHT, OVER]	1.00	□
1B 19	MON VHF-2 COMM AUDIO	7.00	□
4E 14	SET FLAP CONT LEVER TO FLAPS 40	2.92	□
4N 03	MON LE FLAPS-IN-TRANSIT LT ON	1.17	□
4E 15	MONITOR FLAP POSITION INDICATOR	2.23	□
1PLNDCL4	MON RADIO COMM - [UNITED 24, DENVER TOWER, ROGER, CLEAR TO LAND RUNWAY TWO SIX, WIND TWO ONE ZERO DEGREES AT ZERO NINER.]	4.00	□
1PLNDCL5	CHECK FLAP LEVER AND POSITION INDIC AGREE	9.00	□
4E 16	COMM VIA VHF-2	2.50	□
1B 15	RADIO COMM - [U24, ROGER]	1.70	□
1PLNDCL1		1.70	□

800. 850. 900. 950. 1000. 1050. 1100.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1B 29	ACTUATE COMM 2 PUSH-TO-TALK SW	1.70	0
4N 04	MON LE FLAPS-IN-TRANSIT LT OFF	1.17	I
1P160073	CALL OUT -[FLAPS 40]	0.70	I
160062	LANDING CHECKLIST		▽
1P160076	CALL OUT -[RECALL]	0.60	I
1P160077	CALL OUT -[CHECKED]	0.40	I
1P160078	CALL OUT -[SPEED BRAKES]	0.70	I
1P 02	MON VERBAL REPORT	1.30	I
1P160080	CALL OUT -[LANDING GEAR]	0.70	I
1P160082	CALL OUT -[FLAPS]	0.40	I
1P160083	CALL OUT -[FORTY. GREEN LIGHT]	1.10	I
1P160081	CALL OUT -[DOWN. THREE GREEN]	1.00	I
1P160084	CALL OUT -[CHECKLIST COMPLETE]	1.10	I
160018	FLAP SET PROCEDURE		▽
1P 10	MON VERBAL REPORT	0.70	I
4N 03	MON LE FLAPS-IN-TRANSIT LT ON	1.17	I
4E 15	MONITOR FLAP POSITION INDICATOR	2.23	0
4E 16	CHECK FLAP LEVER AND POSITION INDIC AGREE	2.50	0
4N 04	MON LE FLAPS-IN-TRANSIT LT OFF	1.17	I
1SC905	FLIGHT INSTRUMENT SCAN - G		▽
2J 43	MON EADI	90.00	
3L 03	MON VERTICAL SPEED INDIC	90.00	
3A 11	MONITOR AIRSPEED INDIC	90.00	
2K 15	MON EHSI DISPLAY	90.00	
160065	DESCEND THRU -DECISION HEIGHT		▽
3R 12	MON DECISION HGT LT ON FDI	2.50	0
1P160086	CALL OUT -[DECISION HEIGHT]	0.80	I
1SC105	FLIGHT INSTRUMENT SCAN - B		▽

800. 850. 900. 950. 1000. 1050. 1100.

CODE		EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
9A	10	MONITOR AIRSPEED INDIC	10.00	<input type="checkbox"/>
2K	14	MON EHSI DISPLAY	10.00	<input type="checkbox"/>
2J	42	MON EADI	10.00	<input type="checkbox"/>
9L	02	MON VERTICAL SPEED INDIC	10.00	<input type="checkbox"/>
[SC105		FLIGHT INSTRUMENT SCAN - 8		▽
2K	14	MON EHSI DISPLAY	10.00	<input type="checkbox"/>
2J	42	MON EADI	10.00	<input type="checkbox"/>
9L	02	MON VERTICAL SPEED INDIC	10.00	<input type="checkbox"/>
9A	10	MONITOR AIRSPEED INDIC	10.00	<input type="checkbox"/>

800.

850.

900.

950.

1000.

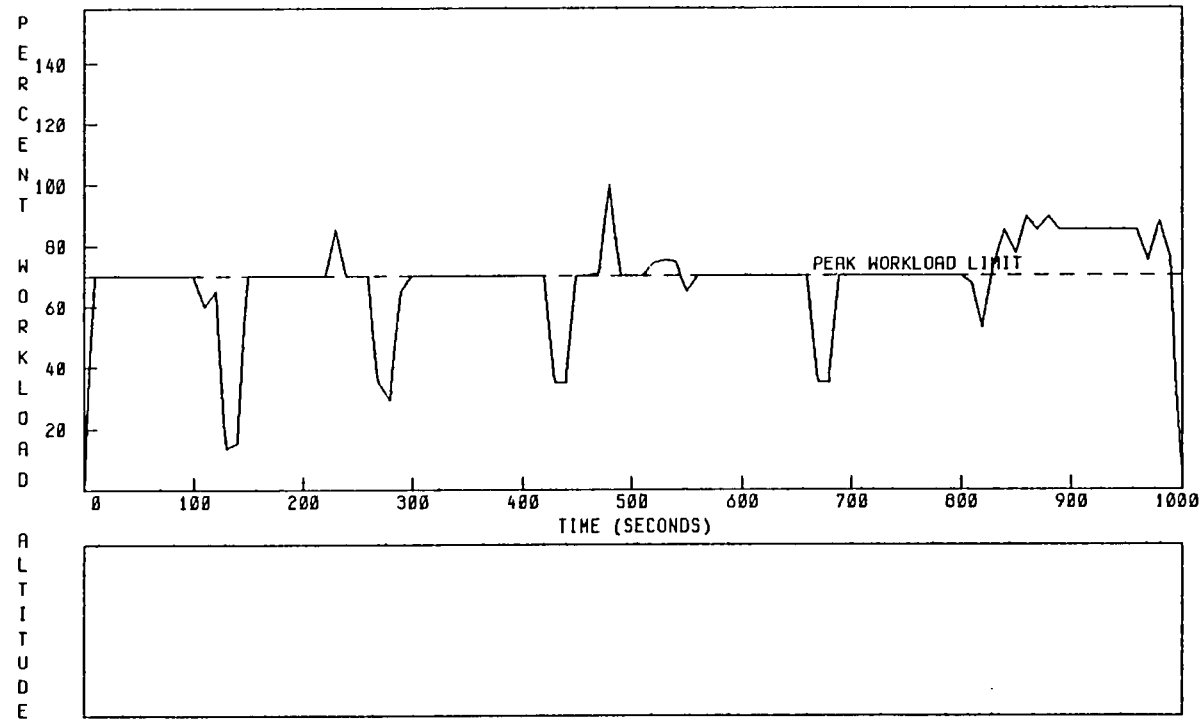
1050.

1100.

UNSHIFTED
AUG 14, 1978

WORKLOAD HISTOGRAM
CREWMEMBER- PILOT
CHANNEL- TOTAL VISION
CONFIGURATION- NASA 515 - AFD

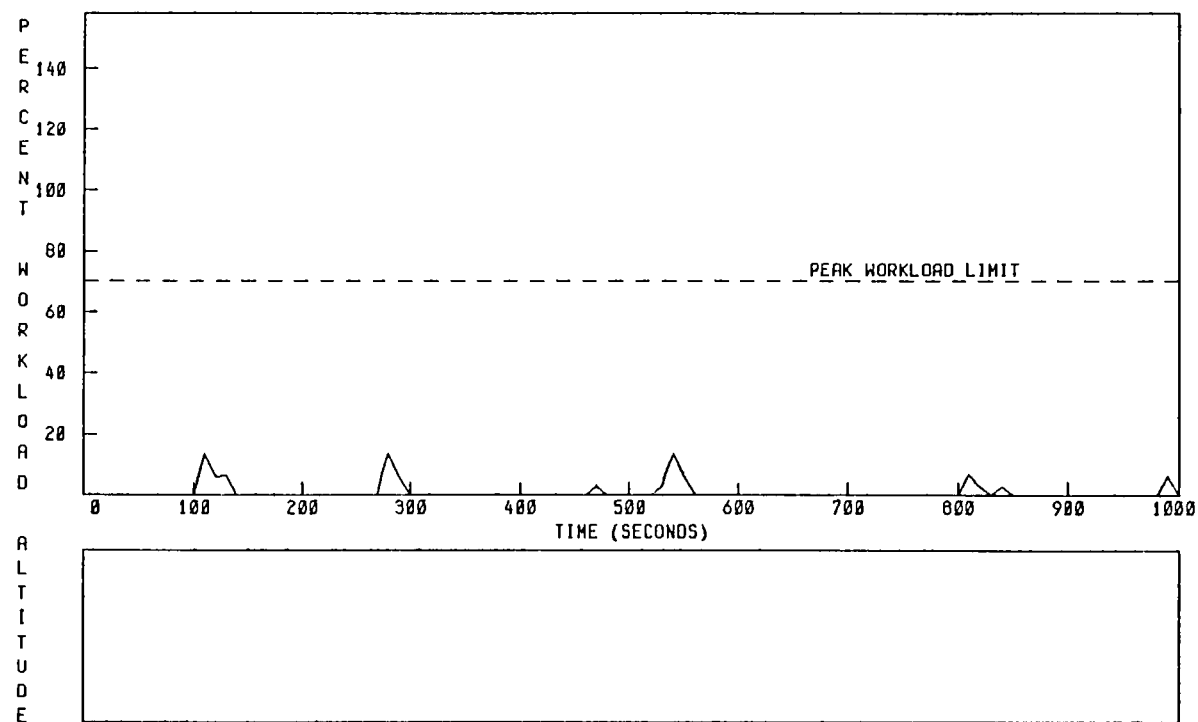
MISSION
BYERS APP SCENARIO



UNSHIFTED
AUG 14, 1978

WORKLOAD HISTOGRAM
CREWMEMBER- PILOT
CHANNEL- TOTAL MOTOR
CONFIGURATION- NASA 515 - AFD

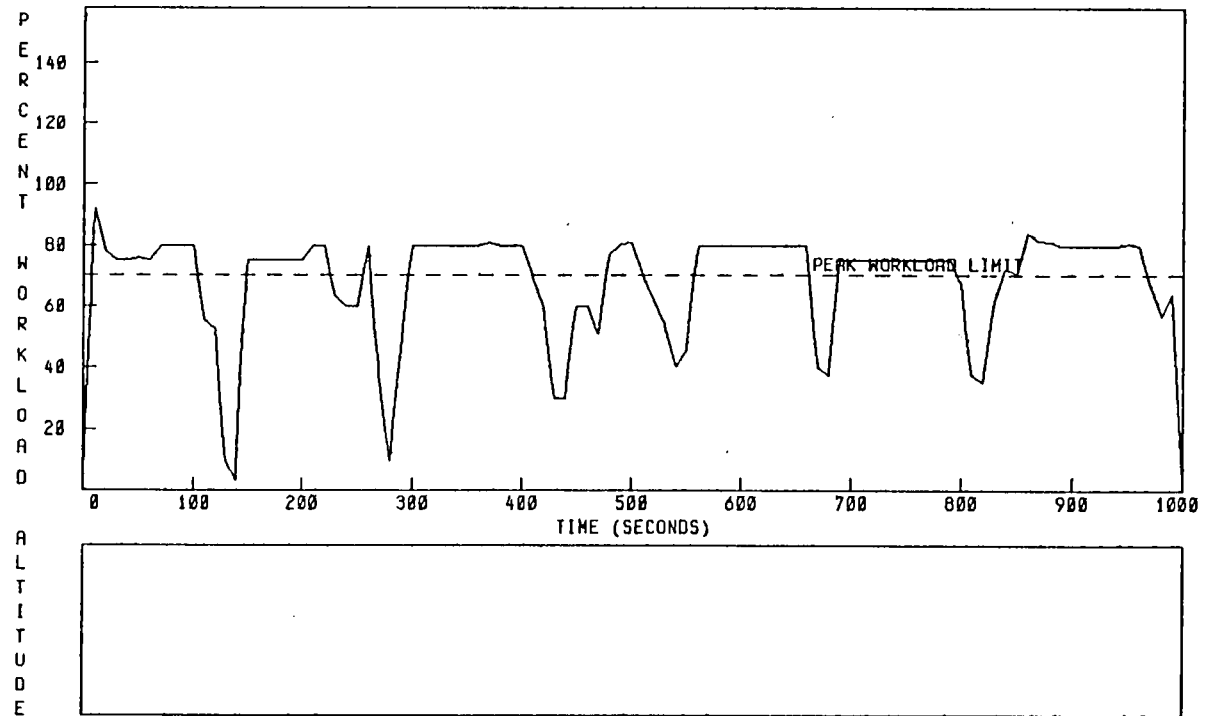
MISSION
BYERS APP SCENARIO



UNSHIFTED
AUG 14, 1978

WORKLOAD HISTOGRAM
CREWMEMBER- PILOT
CHANNEL- COGNITION
CONFIGURATION- NASA 515 - AFD

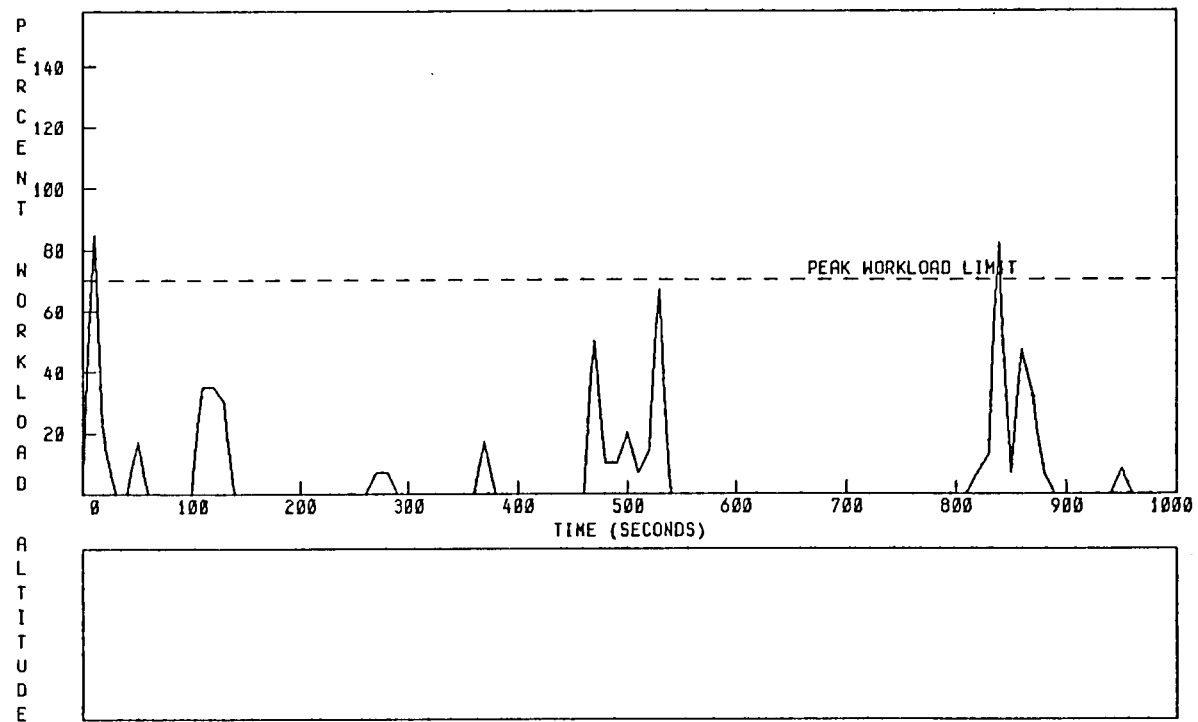
MISSION
BYERS APP SCENARIO



UNSHIFTED
AUG 14, 1978

WORKLOAD HISTOGRAM
CREWMEMBER- PILOT
CHANNEL- TOTAL COMMUNICATION
CONFIGURATION- NASA 515 - AFD

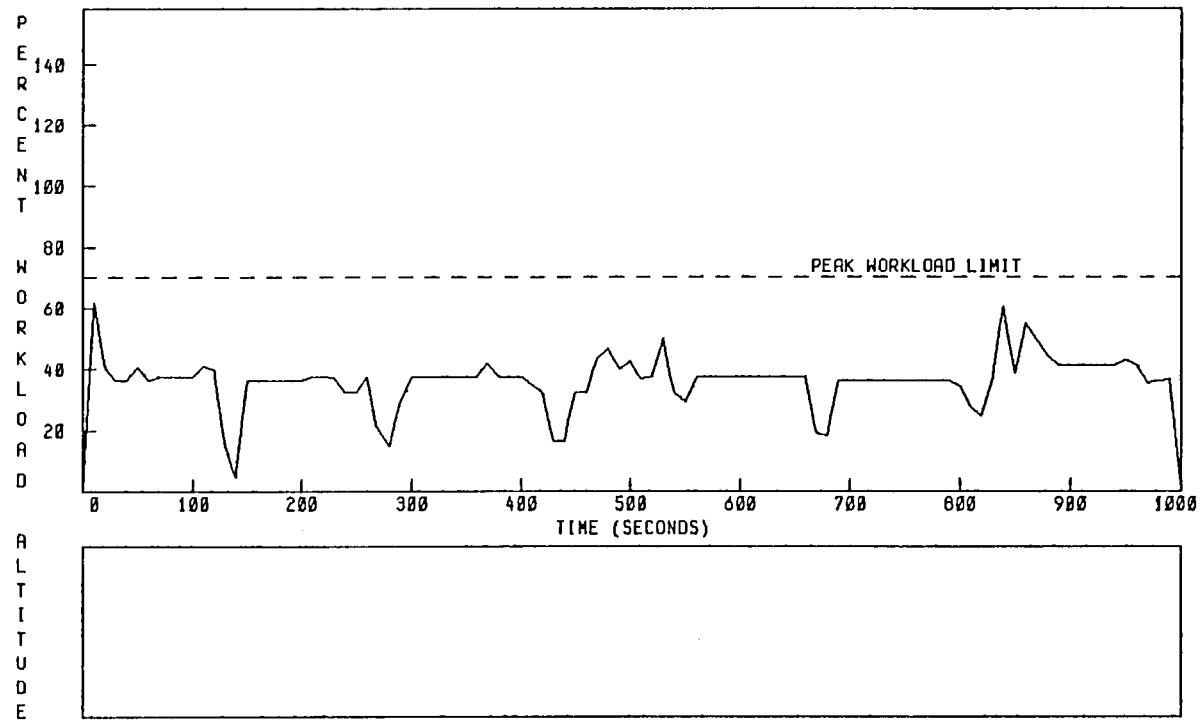
MISSION
BYERS APP SCENARIO



UNSHIFTED
AUG 14, 1978

WORKLOAD HISTOGRAM
CREWMEMBER- PILOT
CHANNEL- WEIGHTED CHANNEL AVERAGE
CONFIGURATION- NASA 515 - AFD

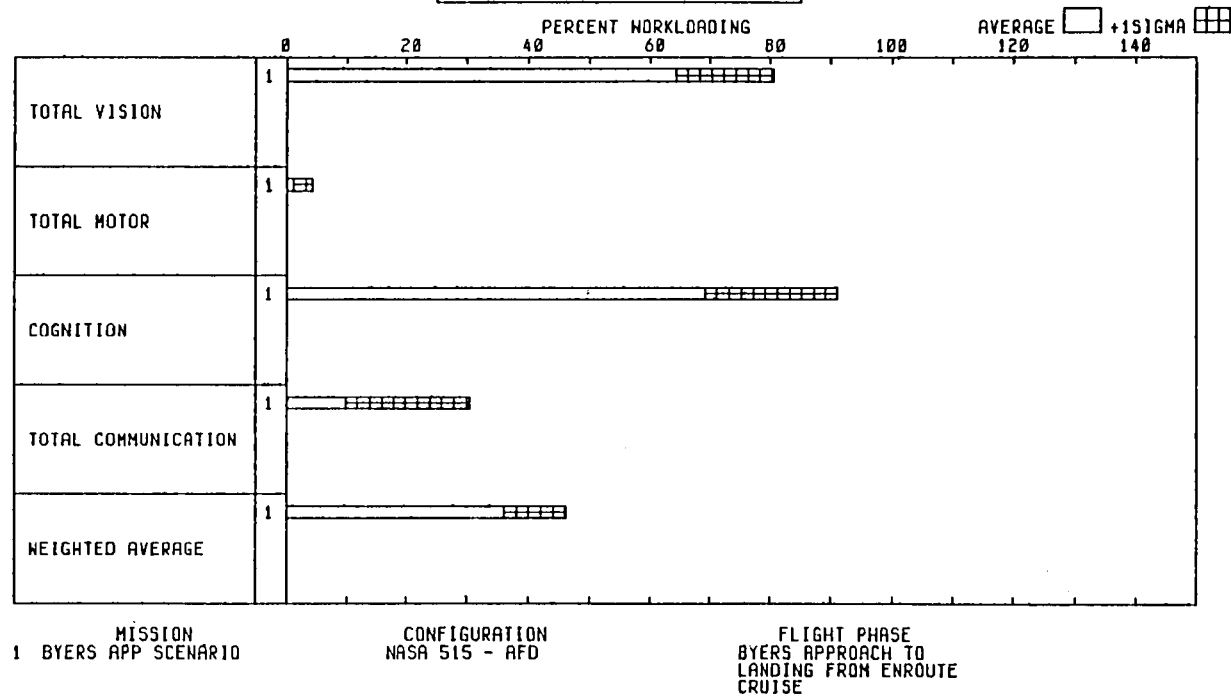
MISSION
BYERS APP SCENARIO



UNSHIFTED

WORKLOAD SUMMARY CREWMEMBER - PILOT

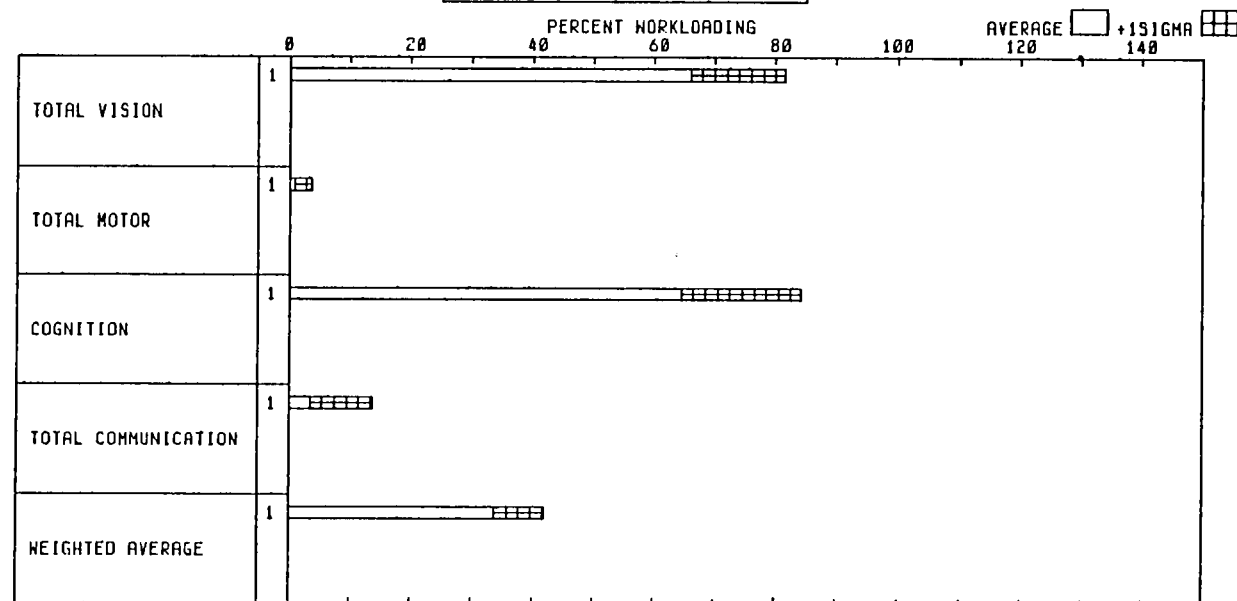
AUG 14, 1978



UNSHIFTED

WORKLOAD SUMMARY
CREWMEMBER - PILOT

AUG 14, 1978



MISSION
1 BYERS APP SCENARIO

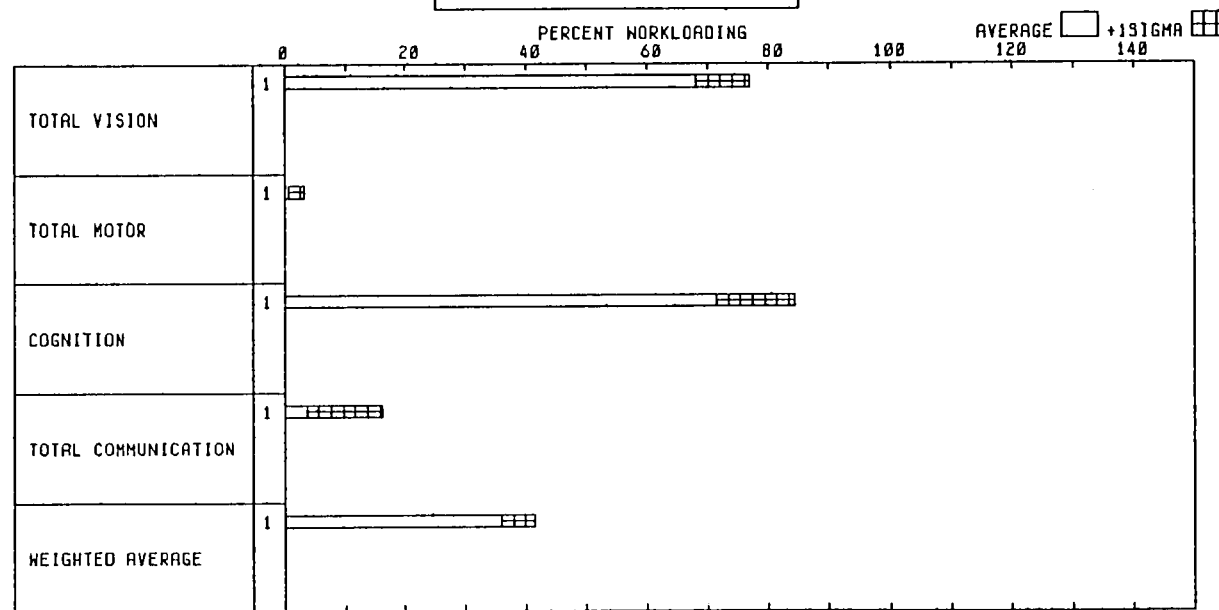
CONFIGURATION
NASA 515 - AFD

FLIGHT PHASE
DESCENT FROM BYERS
TO WATKINS INTER-
SECTION

UNSHIFTED

WORKLOAD SUMMARY CREWMEMBER - PILOT

AUG 14, 1978



MISSION
1 BYERS APP SCENARIO

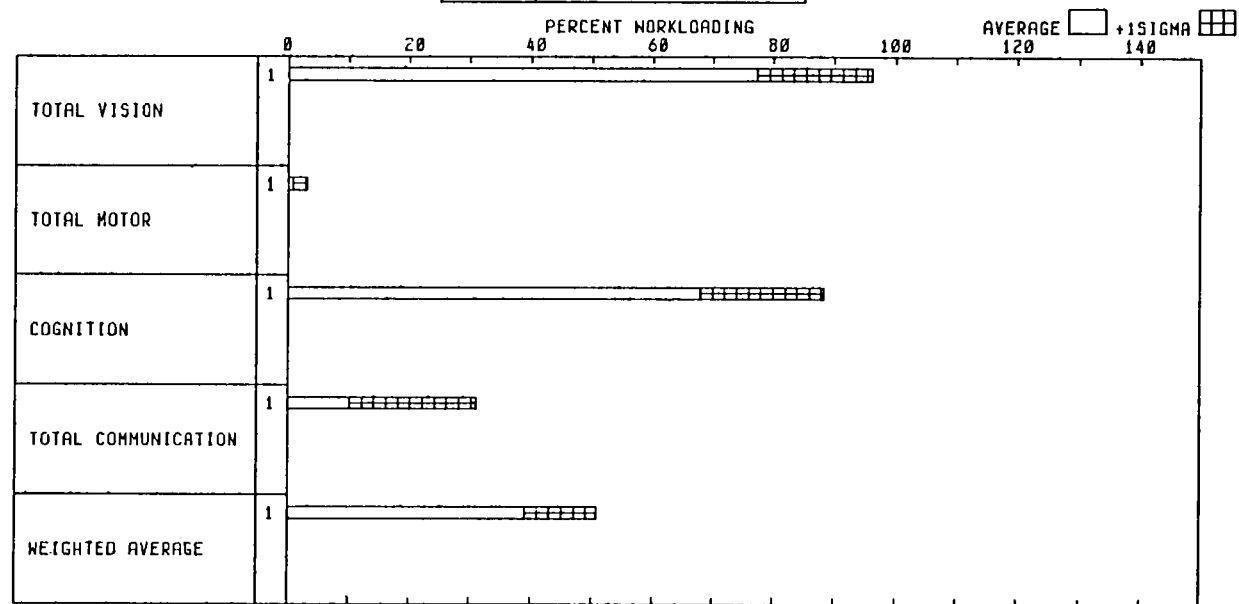
CONFIGURATION
NASA 515 - AFD

FLIGHT PHASE
COURSE DEVIATION FOR
SPACING - WATKINS TO
THE GATE

UNSHIFTED

WORKLOAD SUMMARY
CREWMEMBER - PILOT

AUG 14, 1978



MISSION
1 BYERS APP SCENARIO

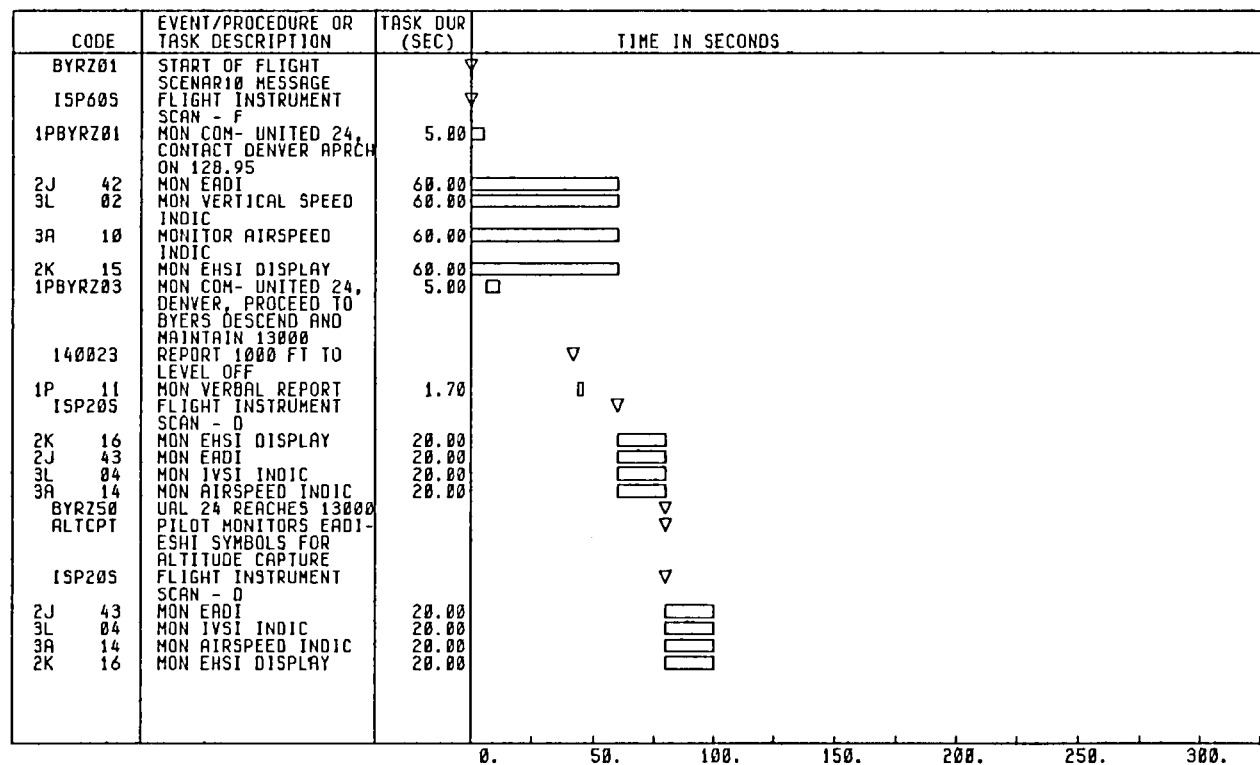
CONFIGURATION
NASA 515 - AFD

FLIGHT PHASE
FINAL APPROACH TO
FROM THE GATE THRU
TOUCHDOWN

UNSHIFTED

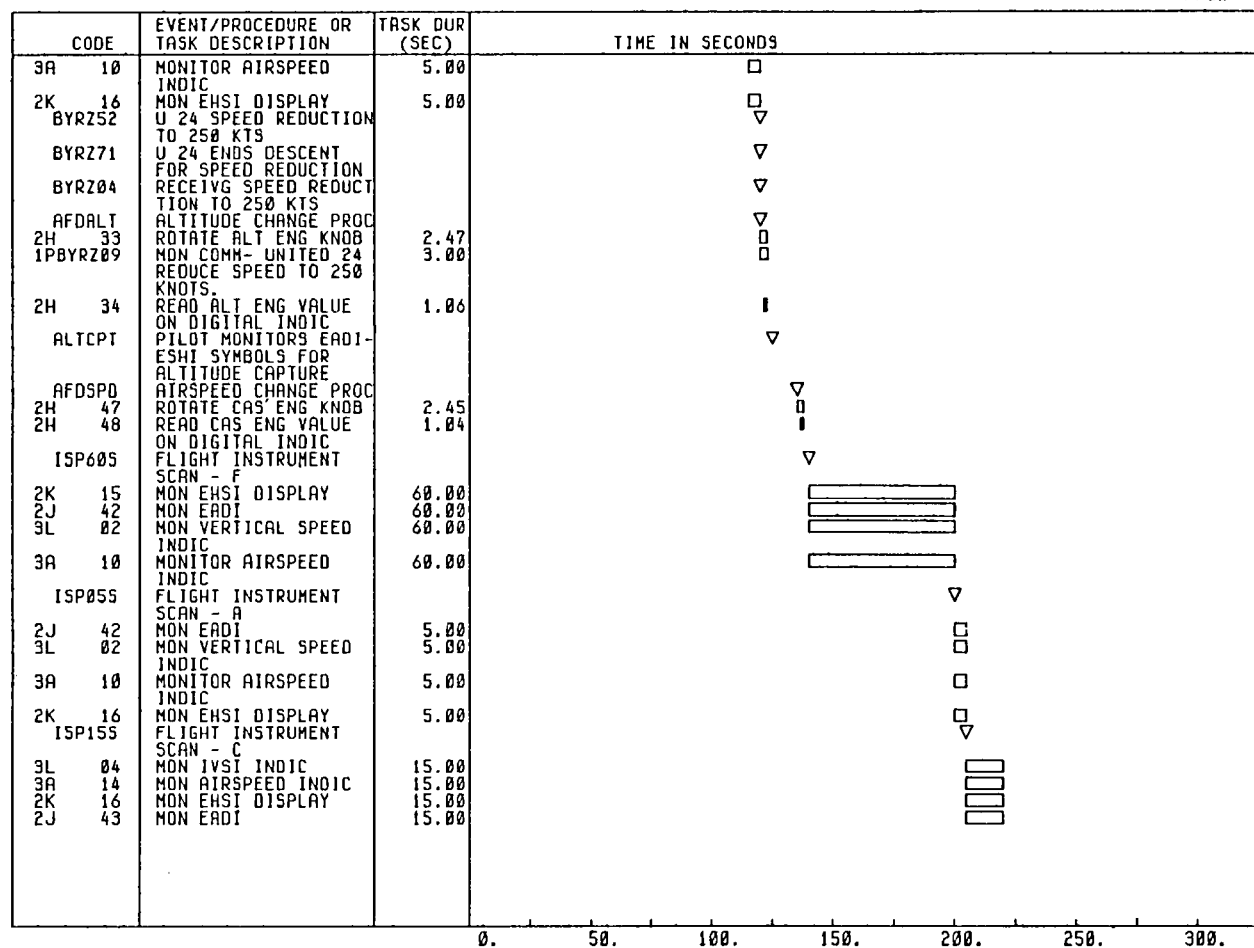
MISSION TIMELINE
 MISSION - BYERS APP SCENARIO
 CONFIGURATION - NASA 515 - AFD
 FLIGHT PHASE - BYERS APPROACH TO
 LANDING FROM ENROUTE
 CRUISE
 CREWMEMBER - PILOT

AUG 14, 1978



CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
BYRZ51	U 24 CLEARED FOR DESCENT		▽
BYRZ02	RECEIVE CLEARANCE TO 12000		▽
ISP055	FLIGHT INSTRUMENT SCAN - A		▽
3L 02	MON VERTICAL SPEED INDIC	5.00	□
3A 10	MONITOR AIRSPEED INDIC	5.00	□
2K 16	MON EHSI DISPLAY	5.00	□
1PBYRZ05	MON CALL- UNITED 24 DESCEND AND MAINTAIN 12000.	3.50	□
2J 42	MON EADI	5.00	□
ALT2CH	ALTITUDE CHANGE PROC FOR 20 FLIGHT PATH		▽
2H 33	ROTATE ALT ENG KNOB	2.47	□
2H 31	MON ALT ENG MODE LT BLUE - ALT ENG MODE PRESELECTED	0.78	I
2H 34	READ ALT ENG VALUE ON DIGITAL INDIC	1.06	I
2H 28	PRESS ALT ENG MODE SW	1.42	I
2H 30	MON ALT ENG MODE LT ORANGE - ALT ENG MODE ARMED	0.78	I
2H 26	ROTATE FPA SEL KNOB	2.45	□
2K 32	MON ALT/RNG SYMBOLS	2.00	□
2H 21	PRESS FPA SEL MODE SW	1.40	□
3A 01	MONITOR INDICATED AIRSPEED INDIC	0.60	I
BYRZ03	RECEIVE CLEARANCE TO 11000		▽
1PBYRZ07	MON COMM- UNITED 24 DESCEND AND MAINTAIN 11000.	3.50	□
3L 05	MON IVSI	0.60	I
3H 02	MON CORR BARO ALT INDIC	0.60	I
ISP055	FLIGHT INSTRUMENT SCAN - A		▽
2J 42	MON EADI	5.00	□
3L 02	MON VERTICAL SPEED INDIC	5.00	□

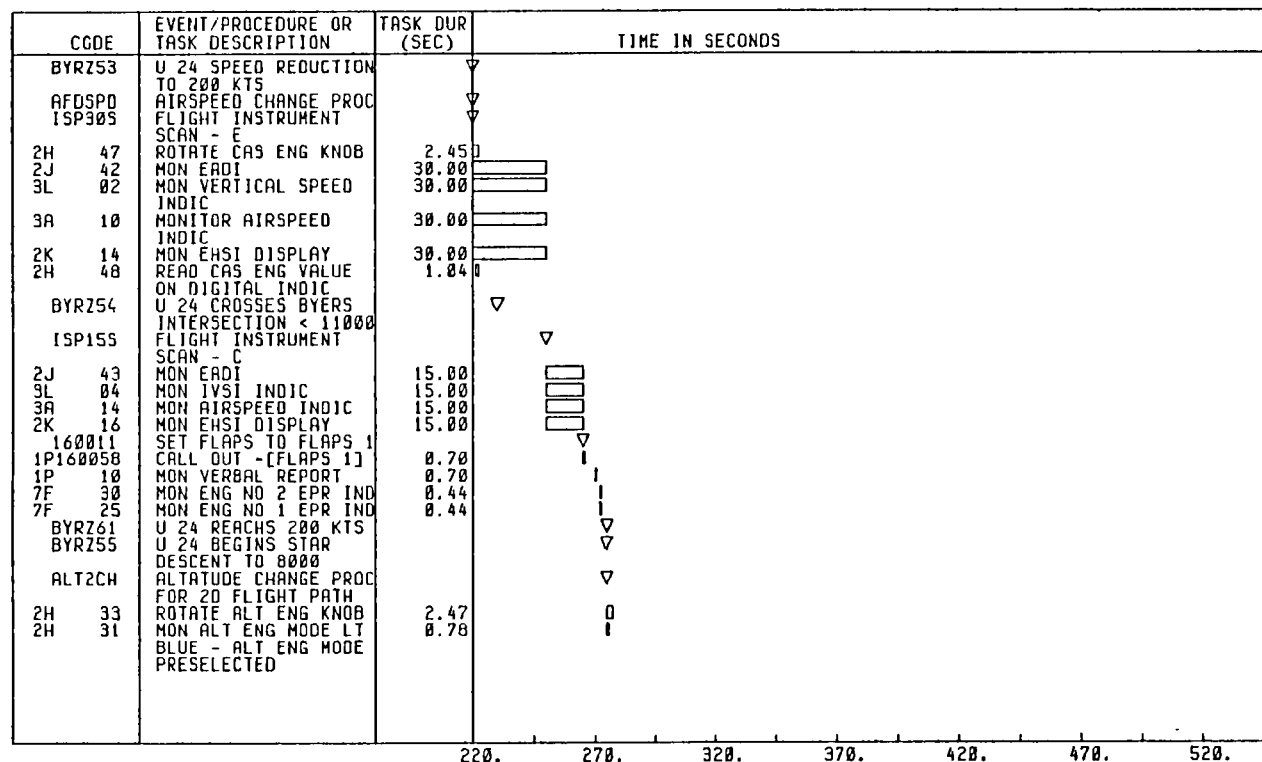
0. 50. 100. 150. 200. 250. 300.



UNSHIFTED

MISSION TIMELINE
MISSION - BYERS APP SCENARIO
CONFIGURATION - NASA 515 - AFD
FLIGHT PHASE - DESCENT FROM BYERS
TO WATKINS INTER-
SECTION
CREWMEMBER - PILOT

AUG 14, 1978



CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
2H 34	READ ALT ENG VALUE ON DIGITAL INDIC	1.06	I
2H 28	PRESS ALT ENG MODE SW	1.42	I
2H 30	MON ALT ENG MODE LT ORANGE - ALT ENG MODE ARMED	0.78	I
2H 26	ROTATE FPA SEL KNOB	2.45	0
2K 32	MON ALT/RNG SYMBOLS	2.00	0
2H 21	PRESS FPA SEL MODE SW	1.40	0
3A 01	MONITOR INDICATED AIRSPEED INDIC	0.60	I
3L 05	MON IVSI	0.60	I
3H 02	MON CORR BARO ALT INDIC	0.60	I
ISP120	FLIGHT INSTRUMENT SCAN - H		▽
3L 03	MON VERTICAL SPEED INDIC	120.00	
3A 11	MONITOR AIRSPEED INDIC	120.00	
2K 15	MON EHSI DISPLAY	120.00	
2J 43	MON EADI	120.00	
140023	REPORT 1200 FT TO LEVEL OFF		▽
1P 11	MON VERBAL REPORT	1.70	0
ISP105	FLIGHT INSTRUMENT SCAN - B		▽
2K 14	MON EHSI DISPLAY	10.00	
2J 42	MON EADI	10.00	
3L 02	MON VERTICAL SPEED INDIC	10.00	
3A 10	MONITOR AIRSPEED INDIC	10.00	
ISP105	FLIGHT INSTRUMENT SCAN - B		▽
2J 42	MON EADI	10.00	
3L 02	MON VERTICAL SPEED INDIC	10.00	
3A 10	MONITOR AIRSPEED INDIC	10.00	
2K 14	MON EHSI DISPLAY	10.00	
BYR267	U 24 REACHES 0000		
ALTCPT	PILOT MONITORS EADI-ESHI SYMBOLS FOR ALTITUDE CAPTURE		

220. 270. 320. 370. 420. 470. 520.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
ISP305	FLIGHT INSTRUMENT SCAN - E		▽
2K 14	MON EHSI DISPLAY	30.00	▬
2J 42	MON EADI	30.00	▬
3L 02	MON VERTICAL SPEED INDIC	30.00	▬
3A 10	MONITOR AIRSPEED INDIC	30.00	▬
170007	TUNE NAV RADIOS FOR MLS APPROACH.		▽
BYR270	U 24 CROSS WATKINS < 200 KTS < 0000, RECEIVE METER/SPACING INSTRUCTIONS		▽
BYR207	RECEIVE METER/SPACE INSTRUCTIONS		▽
TKACHG	HEADING CHANGE PROC TO DEVIATE FROM 20 FLIGHT PATH		▽
2H 19	ROTATE TKA SEL KNOB	2.50	□
1PBYR216	MSG- UNITED 24 TURN RIGHT HEADING 350 REDUCE TO APPROACH SPEED (150KTS)	6.00	□
2K 47	MON TRACK ANGLE SYM	2.20	□
2K 17	MON EHSI DISPLAY	2.20	□
2H 17	MON TKA SEL MODE LT BLUE - TKA SEL MODE PRESELECTED	0.77	□
2H 14	PRESS TKA SEL MODE SW	1.41	□
2H 15	MON TKA SEL MODE LT GREEN - TKA SEL MODE ENGAGED	0.78	□
2H 38	MON HOR PATH MODE LT DARK - HOR PATH MODE DISENGAGED	0.78	□
3H 07	MON ALTIMETER	5.00	□
2K 59	MON CURVED TREND VECTOR SYMBOLS	5.00	□
3A 10	MONITOR AIRSPEED INDIC	5.00	□
2J 42	MON EADI	5.00	□
2K 16	MON EHSI DISPLAY	2.27	□
AFD5P0	AIRSPEED CHANGE PROC		□
2H 47	ROTATE CAS ENG KNOB	2.45	□

220. 270. 320. 370. 420. 470. 520.

CODE		EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS	
2H	48	READ CAS ENG VALUE ON DIGITAL INDIC	1.04		I
	ISP055	FLIGHT INSTRUMENT SCAN - A			▽
3L	02	MON VERTICAL SPEED INDIC	5.00		□
3A	10	MONITOR AIRSPEED INDIC	5.00		□
2K	16	MON EHSI DISPLAY	5.00		□
2J	42	MON EADI	5.00		□
1P	02	MON VERBAL REPORT	3.00		□
				220.	270.
				320.	370.
				420.	470.
				520.	

UNSHIFTED

MISSION TIMELINE
 MISSION - BYERS APP SCENARIO
 CONFIGURATION - NASA 515 - AFD
 FLIGHT PHASE - COURSE DEVIATION FOR
 SPACING - WATKINS TO
 THE GATE
 CREWMEMBER - PILOT

AUG 14, 1978

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
ISP205	FLIGHT INSTRUMENT SCAN - 0		
2J 43	MON EADI	20.00	
3L 04	MON IVSI INDIC	20.00	
3A 14	MON AIRSPEED INDIC	20.00	
2K 16	MON EHSI DISPLAY	20.00	
ISP055	FLIGHT INSTRUMENT SCAN - A		
3L 02	MON VERTICAL SPEED INDIC	5.00	
3A 10	MONITOR AIRSPEED INDIC	5.00	
2K 16	MON EHSI DISPLAY	5.00	
2J 42	MON EADI	5.00	
BYR163	SET FLAPS TO POS 5		
160017	SET FLAPS TO FLAPS 5		
160018	FLAP SET PROCEDURE		
ISP105	FLIGHT INSTRUMENT SCAN - B		
3L 02	MON VERTICAL SPEED INDIC	10.00	
3A 10	MONITOR AIRSPEED INDIC	10.00	
2K 14	MON EHSI DISPLAY	10.00	
1P160061	CALL OUT -[FLAPS 5]	0.70	
2J 42	MON EADI	10.00	
1P 10	MON VERBAL REPORT	0.70	
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 30	MON ENG NO 2 EPR IND	0.44	
ISP105	FLIGHT INSTRUMENT SCAN - B		
160025	SET FLAPS TO FLAPS 15		
160018	FLAP SET PROCEDURE		
3L 02	MON VERTICAL SPEED INDIC	10.00	

490. 530. 580. 630. 680. 730. 780.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
9A 10	MONITOR AIRSPEED INDIC	10.00	<input type="checkbox"/>
2K 14	MON EHSI DISPLAY	10.00	<input type="checkbox"/>
1P160062	CALL OUT - [FLAPS 15]	0.70	<input type="checkbox"/>
2J 42	MON EADI	10.00	<input type="checkbox"/>
1P 10	MON VERBAL REPORT	0.70	
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 30	MON ENG NO 2 EPR IND	0.44	
BYRZ00	RECEIVE INSTRUCTIONS TO PROCEED DIRECT TO THE GATE		▽
1PBYRZ10	MSG- UNITED 24, CLEA RED DIRECT TO APRCH GATE, CONTACT TOWER AT OM 120.0	6.00	<input type="checkbox"/>
TKACHG	HEADING CHANGE PROC TO DEVIATE FROM 20 FLIGHT PATH		▽
2H 19	ROTATE TKA SEL KNOB	2.50	0
2K 17	MON EHSI DISPLAY	2.20	0
2K 47	MON TRACK ANGLE SYM	2.20	0
2H 17	MON TKA SEL MODE LT BLUE - TKA SEL MODE PRESELECTED	0.77	
2H 14	PRESS TKA SEL MODE	1.41	0
2H 30	MON HOR PATH MODE LT DARK - HOR PATH MODE DISENGAGED	0.78	
2H 15	MON TKA SEL MODE LT GREEN - TKA SEL MODE ENGAGED	0.78	
3H 07	MON ALTIMETER	5.00	<input type="checkbox"/>
2K 59	MON CURVED TREND VECTOR SYMBOLS	5.00	<input type="checkbox"/>
3A 10	MONITOR AIRSPEED INDIC	5.00	<input type="checkbox"/>
2K 16	MON EHSI DISPLAY	2.27	0
2J 42	MON EADI	5.00	<input type="checkbox"/>
ALT2CH	ALTITUDE CHANGE PROC FOR 20 FLIGHT PATH		▽
2H 31	MON ALT ENG MODE LT BLUE - ALT ENG MODE PRESELECTED	0.78	
2H 33	ROTATE ALT ENG KNOB	2.47	0
2H 34	READ ALT ENG VALUE ON DIGITAL INDIC	1.06	

400. 530. 580. 630. 680. 730. 780.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
2H 28	PRESS ALT ENG MODE S	1.42	0
2H 30	SW MON ALT ENG MODE LT ORANGE - ALT ENG MODE ARMED	0.78	1
2H 26	ROTATE FPA SEL KNOB	2.45	0
2K 32	MON ALT/RNG SYMBOLS	2.00	0
2H 21	PRESS FPA SEL MODE SW	1.40	0
3A 01	MONITOR INDICATED AIRSPEED INDIC	0.60	1
3L 05	MON IVSI	0.60	1
3H 02	MON CORR BARO ALT INDIC	0.60	1
ISP120	FLIGHT INSTRUMENT SCAN - H		▽
2J 43	MON EADI	120.00	
3L 03	MON VERTICAL SPEED INDIC	120.00	
3A 11	MONITOR AIRSPEED INDIC	120.00	
2K 15	MON EHSI DISPLAY	120.00	
BYR269 ALTCPT	U 24 REACHES 6500 PILOT MONITORS EADI- ESHI SYMBOLS FOR ALTITUDE CAPTURE		▽ ▽
ISP605	FLIGHT INSTRUMENT SCAN - F		▽
2K 15	MON EHSI DISPLAY	60.00	
2J 42	MON EADI	60.00	
3L 02	MON VERTICAL SPEED INDIC	60.00	
3A 10	MONITOR AIRSPEED INDIC	60.00	
ISP605	FLIGHT INSTRUMENT SCAN - F		▽
2J 42	MON EADI	60.00	
3L 02	MON VERTICAL SPEED INDIC	60.00	
3A 10	MONITOR AIRSPEED INDIC	60.00	
2K 15	MON EHSI DISPLAY	60.00	
ISP105	FLIGHT INSTRUMENT SCAN - B		▽
3L 02	MON VERTICAL SPEED INDIC	10.00	

400. 530. 580. 630. 680. 730. 780.

CODE		EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
3A	10	MONITOR AIRSPEED INDIC	10.00	<input type="checkbox"/>
2K	14	MON EHSI DISPLAY	10.00	<input type="checkbox"/>
2J	42	MON EADI	10.00	<input type="checkbox"/>

400. 530. 580. 630. 680. 730. 780.

UNSHIFTED

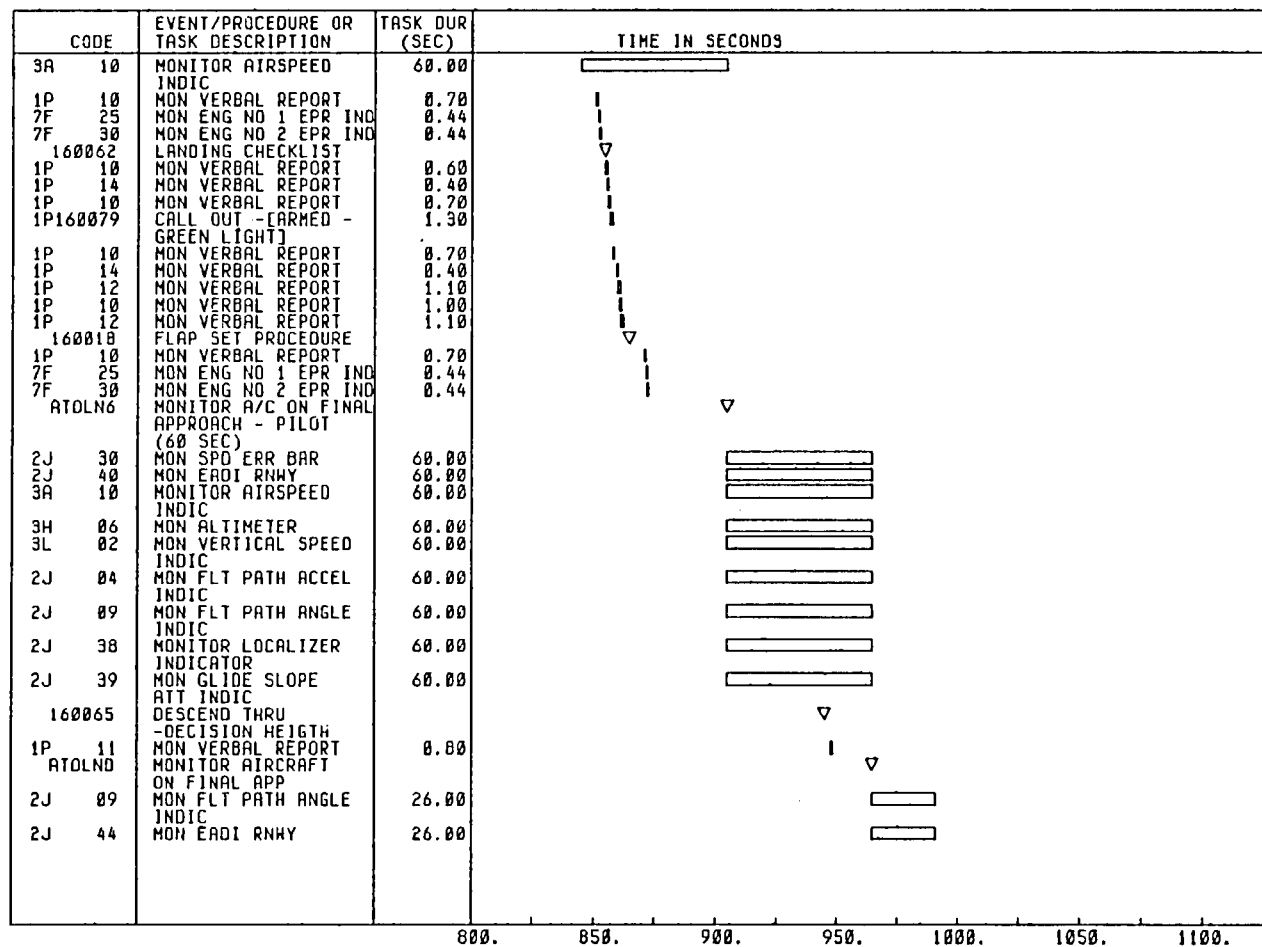
MISSION TIMELINE
MISSION - BYERS APP SCENARIO
CONFIGURATION - NASA 515 - AFD
FLIGHT PHASE - FINAL APPROACH TO
FROM THE GATE THRU
TOUCHDOWN
CREWMEMBER - PILOT

AUG 14, 1978

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
BYRZ58	U 24 CROSSES GATE AT 6500 AND 150 KTS. SLOWS TO 120KTS. FLAPS ON SCHED.		▽
LNDARM	PILOT ARMS AUTOLAND FEATURE ON CNP		▽
2K 17	MON EHSI DISPLAY	2.20	0
2H 36	MON HOR PATH MODE LT GREEN - HOR PATH MODE ENGAGED	0.78	I
2H 35	PRESS HOR PATH MODE SW	1.72	0
2H 38	MON HOR PATH MODE LT DARK - HOR PATH MODE DISENGAGED	0.78	I
2H 13	MON LAND MODE LT DARK - LAND MODE DISENGAGED	1.05	I
2H 10	PRESS LAND MODE SW	2.13	0
AFD5P0	AIRSPD CHANGE PROC		▽
15P305	FLIGHT INSTRUMENT SCAN - E		▽
160053	SET FLAPS TO FLAPS 25		▽
160018	FLAP SET PROCEDURE		▽
LNDCLR	CONTACT TOWER FOR FINAL LANDING CLEARANCE		▽
3L 02	MON VERTICAL SPEED INDIC	30.00	
3A 10	MONITOR AIRSPEED INDIC	30.00	
2K 14	MON EHSI DISPLAY	30.00	
1P160070	CALL OUT - [FLAPS 25]	0.70	I
2H 47	ROTATE CAS ENG KNOB	2.45	0
2J 42	MON EADI	30.00	

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
2H 48	READ CAS ENG VALUE ON DIGITAL INDIC	1.04	I
1P 10	MON VERBAL REPORT	0.70	I
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 30	MON ENG NO 2 EPR IND	0.44	I
1B 19	MON VHF-2 COMM AUDIO	7.00	□
1PLNDCL4	MON RADIO COMM - [UNITED 24, DENVER TOWER, ROGER, CLEAR TO LAND RUNWAY TWO SIX, WIND TWO ONE ZERO DEGREES AT ZERO NINER.]	4.00	□
1PLNDCL5	CROSS Rwy XX OUTER MARKER	3.00	0
160059	MON GLIDE SLOPE ANNUN LT GREEN	1.21	▽
3V 09	MONITOR OUTER MARKER LT ON AND AUDIBLE SIGNAL	0.72	I
3N 03	START ELAPSED TIME INDIC	2.10	0
3V 06	MON LOC ANNUN LT GREEN	1.21	0
1P160075	CALL OUT - [GEAR DOWN AND LANDING CHECK-LIST]	1.00	0
160057	SET FLAPS TO FLAPS 40		▽
160010	FLAP SET PROCEDURE		▽
ATOLN6	MONITOR A/C ON FINAL APPROACH - PILOT (60 SEC)		▽
3H 06	MON ALTIMETER	60.00	=====
3L 02	MON VERTICAL SPEED INDIC	60.00	=====
1P160073	CALL OUT - [FLAPS 40]	0.70	I
2J 04	MON FLT PATH ACCEL INDIC	60.00	=====
2J 09	MON FLT PATH ANGLE INDIC	60.00	=====
2J 38	MONITOR LOCALIZER INDICATOR	60.00	=====
2J 39	MON GLIDE SLOPE ATT INDIC	60.00	=====
2J 30	MON SPD ERR BAR	60.00	=====
2J 40	MON EADI RWHY	60.00	=====

800. 850. 900. 950. 1000. 1050. 1100.



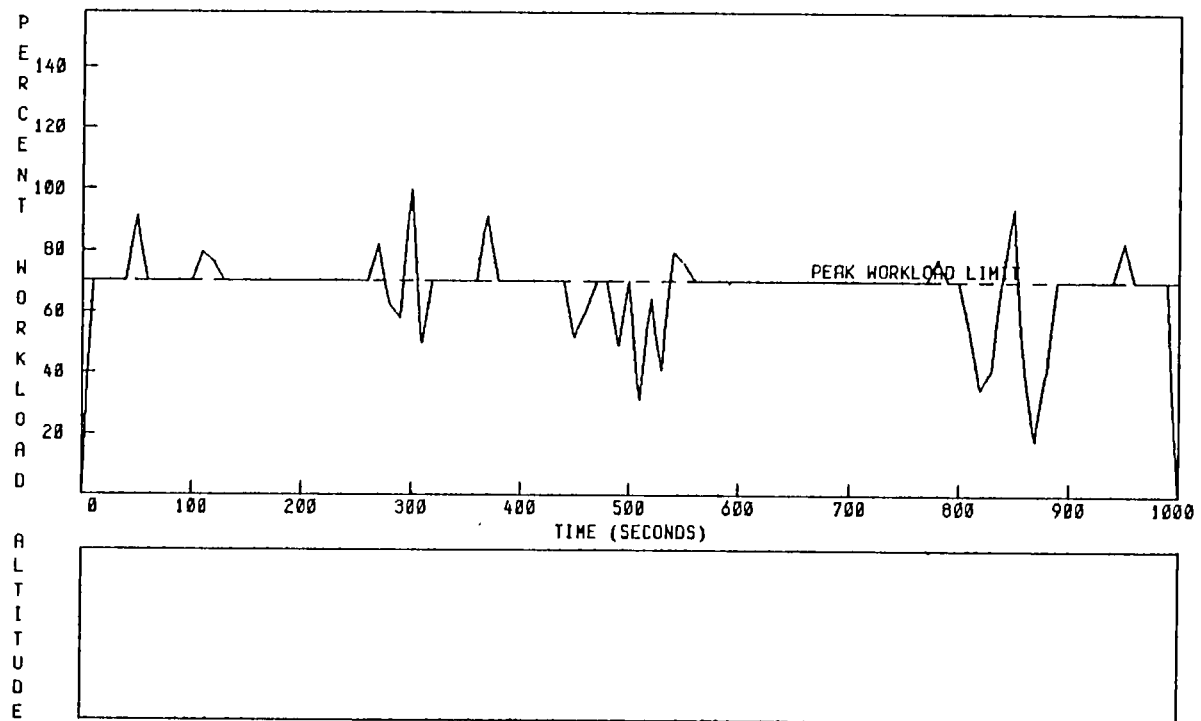
CODE		EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
2J	24	MON 100 FT INDIC ON EADI	2.27	0
2J	41	MON EADI DRIFT INDIC	10.00	0
4B	08	SET THRUST LEVERS TO IDLE	2.50	0
3V	28	MON FLARE LT ON ANUN PANEL- GREEN	1.21	0

800. 850. 900. 950. 1000. 1050. 1100.

UNSHIFTED
AUG 14, 1978

WORKLOAD HISTOGRAM
CREWMEMBER- COPILOT
CHANNEL- TOTAL VISION
CONFIGURATION- NASA 515 - AFD

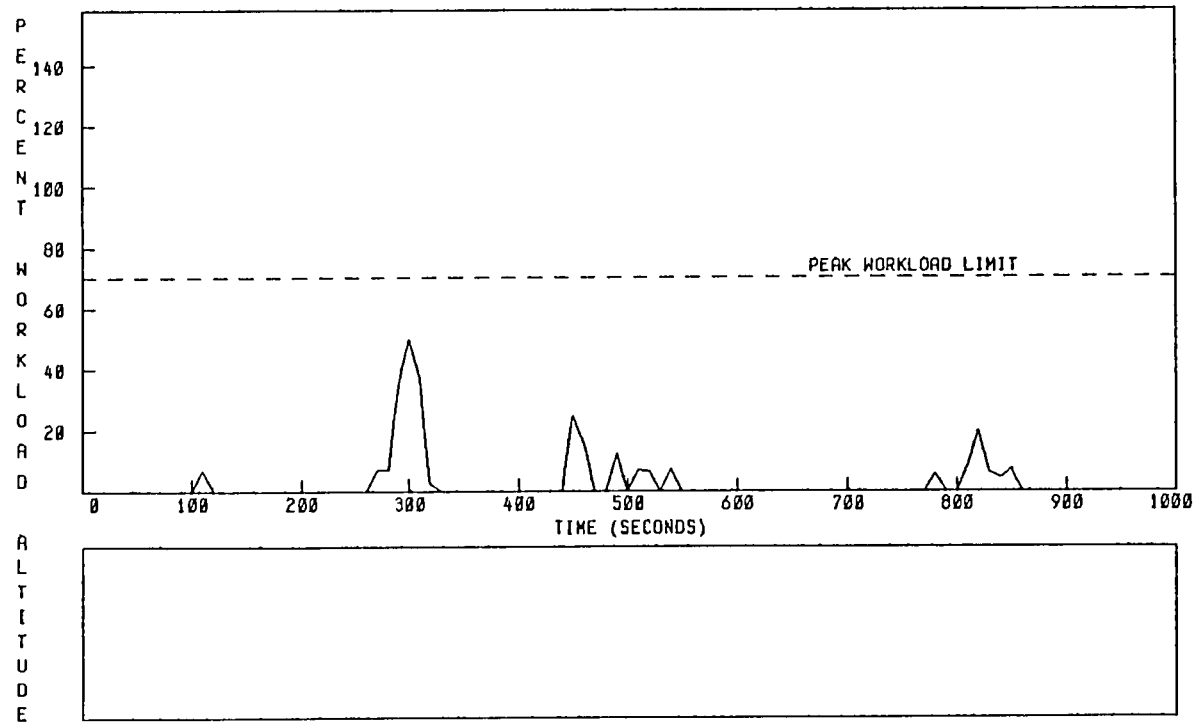
MISSION
BYERS APP SCENARIO



UNSHIFTED
AUG 14, 1978

WORKLOAD HISTOGRAM
CREWMEMBER- COPILOT
CHANNEL- TOTAL MOTOR
CONFIGURATION- NASA 515 - AFD

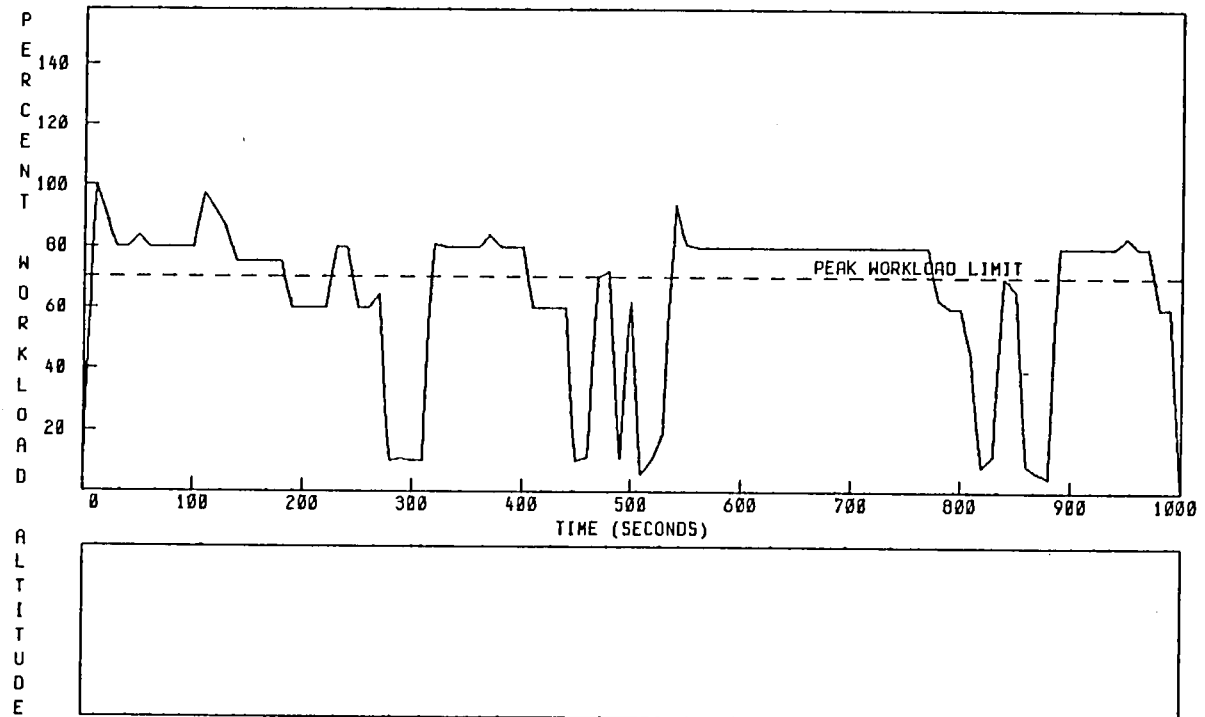
MISSION
BYERS APP SCENARIO



UNSHIFTED
AUG 14, 1978

WORKLOAD HISTOGRAM
CREWMEMBER- COPILOT
CHANNEL- COGNITION
CONFIGURATION- NASA 515 - AFD

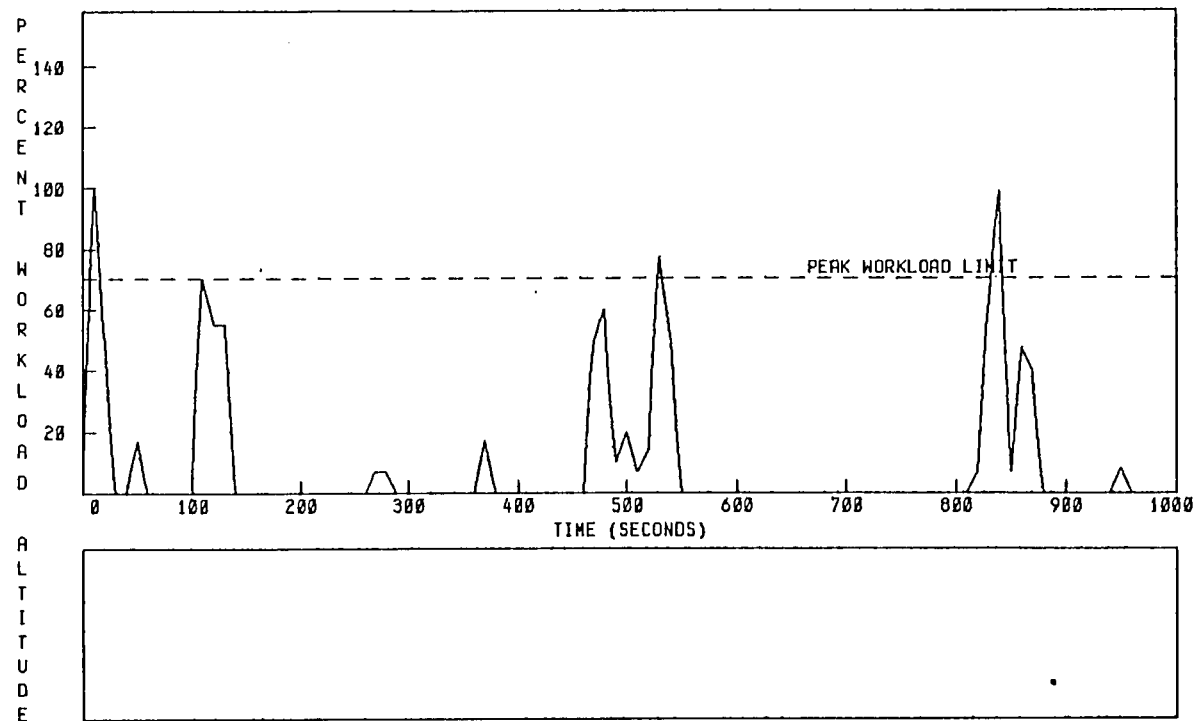
MISSION
BYERS APP SCENARIO



UNSHIFTED
AUG 14, 1978

WORKLOAD HISTOGRAM
CREWMEMBER- COPILOT
CHANNEL- TOTAL COMMUNICATION
CONFIGURATION- NASA 515 - AFD

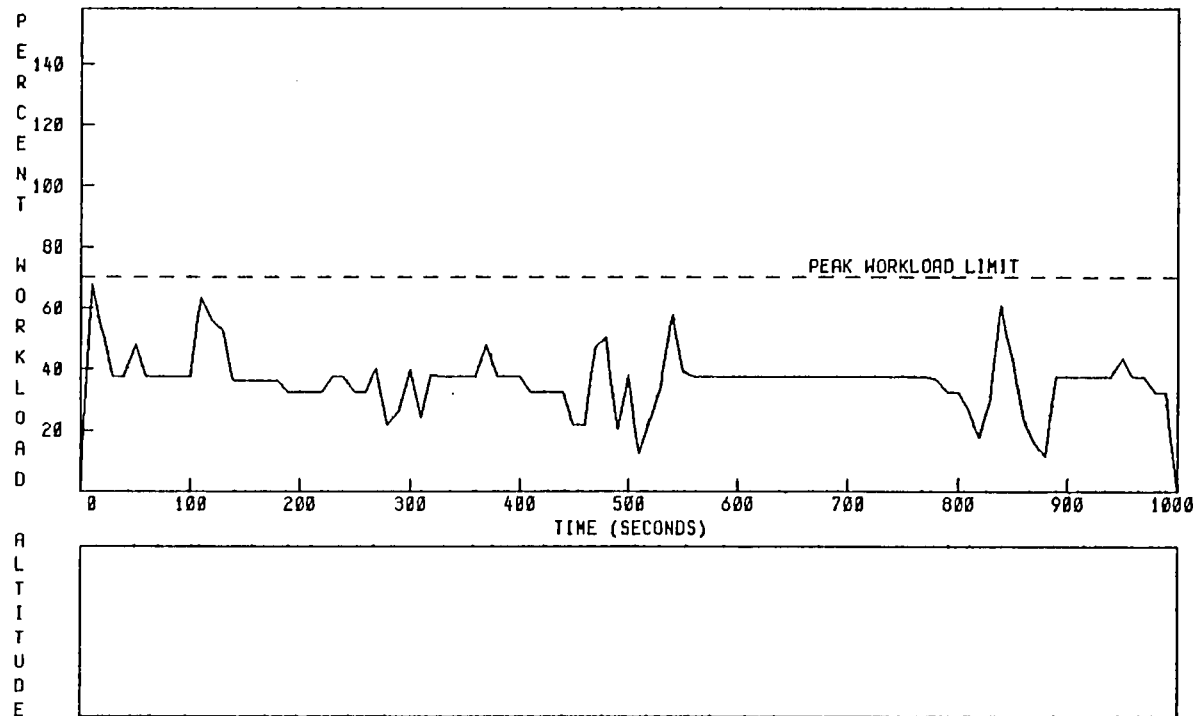
MISSION
BYERS APP SCENARIO



UNSHIFTED
AUG 14, 1978

WORKLOAD HISTOGRAM
CREWMEMBER- COPILOT
CHANNEL- WEIGHTED CHANNEL AVERAGE
CONFIGURATION- NASA 515 - AFD

MISSION
BYERS APP SCENARIO

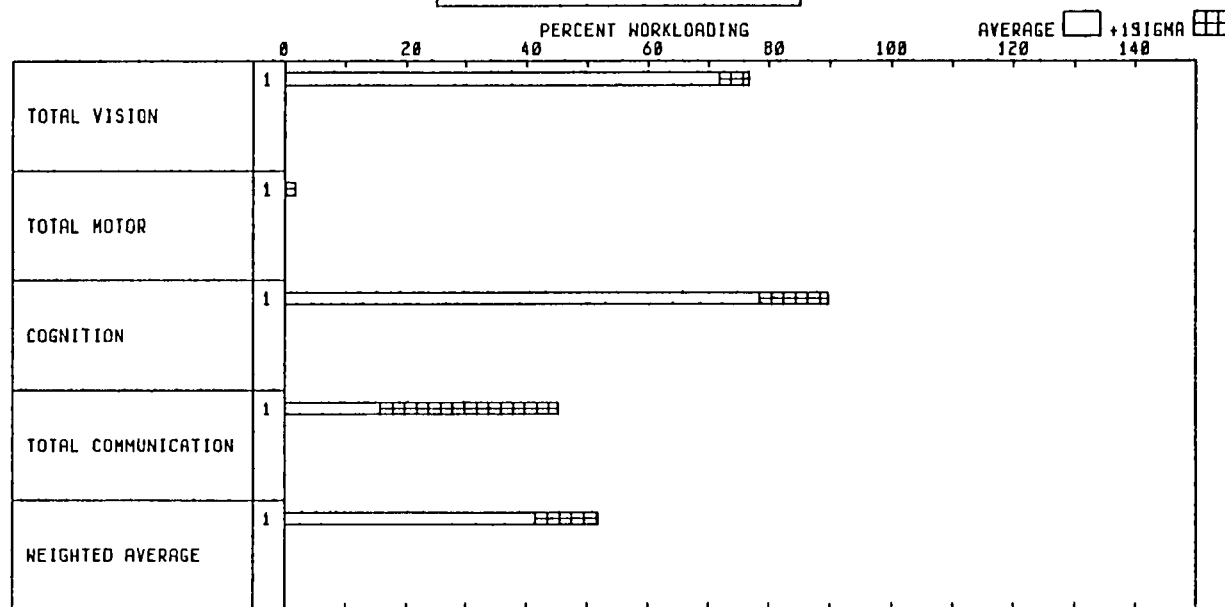


UNSHIFTED

WORKLOAD SUMMARY

CREWMEMBER - COPILOT

AUG 14, 1978



MISSION
1 BYERS APP SCENARIO

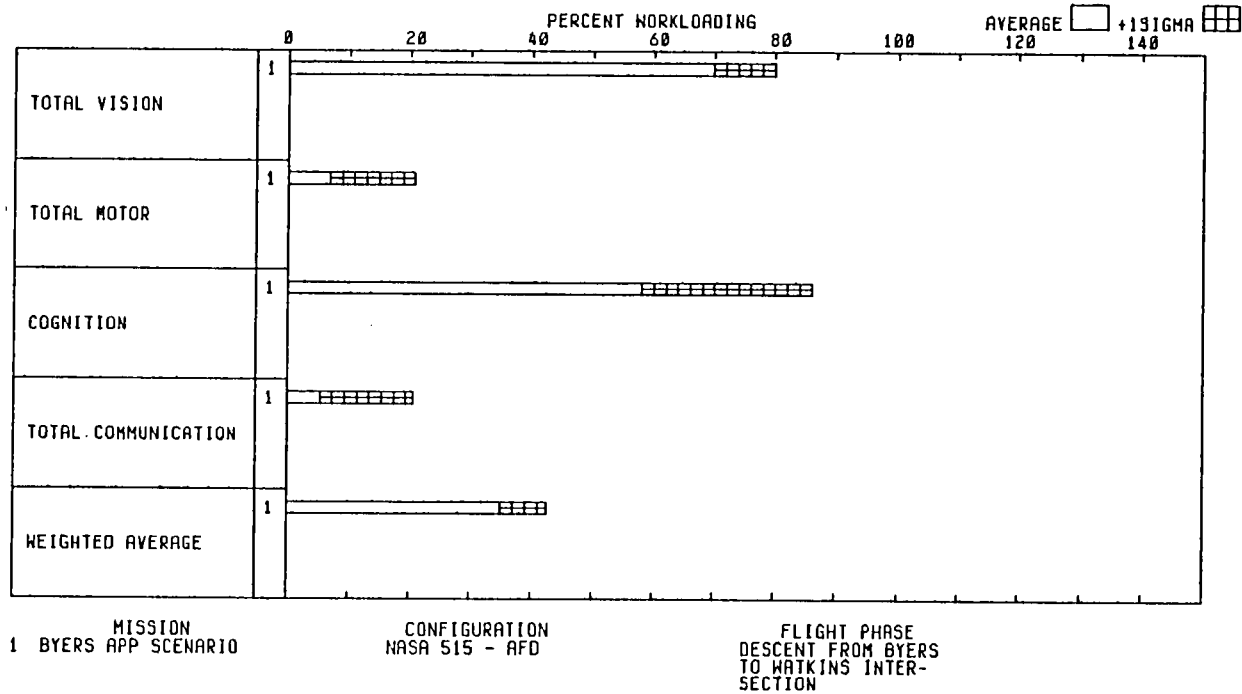
CONFIGURATION
NASA 515 - AFD

FLIGHT PHASE
BYERS APPROACH TO
LANDING FROM ENROUTE
CRUISE

UNSHIFTED

WORKLOAD SUMMARY
CREWMEMBER - COPILOT

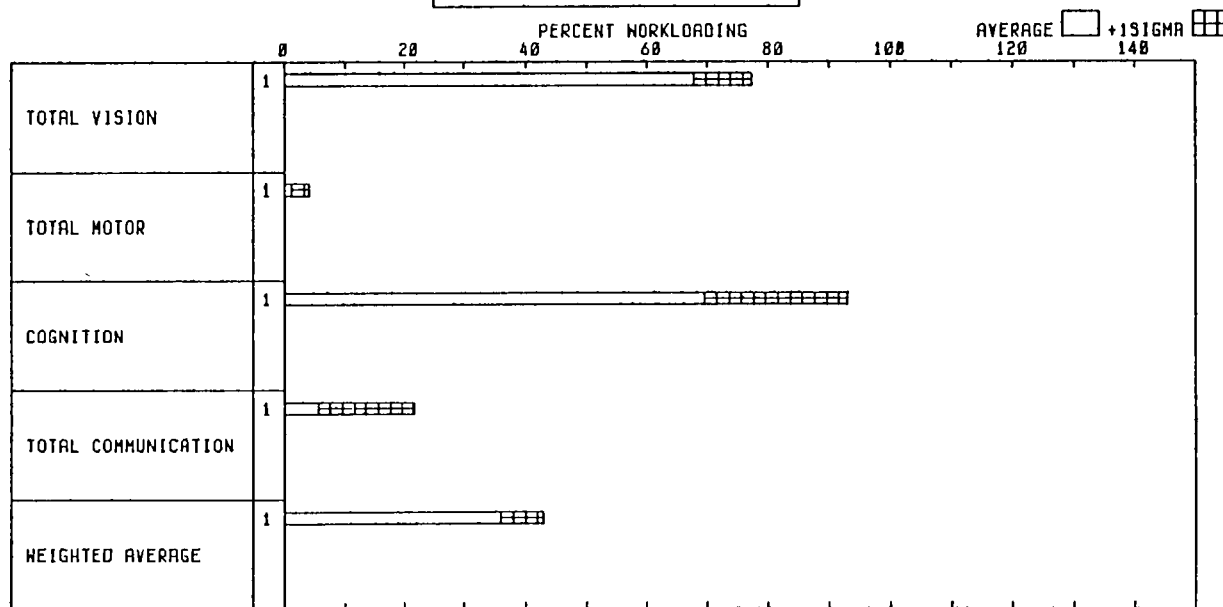
AUG 14, 1978



UNSHIFTED

WORKLOAD SUMMARY CREWMEMBER - COPILOT

AUG 14, 1978



MISSION
1 BYERS APP SCENARIO

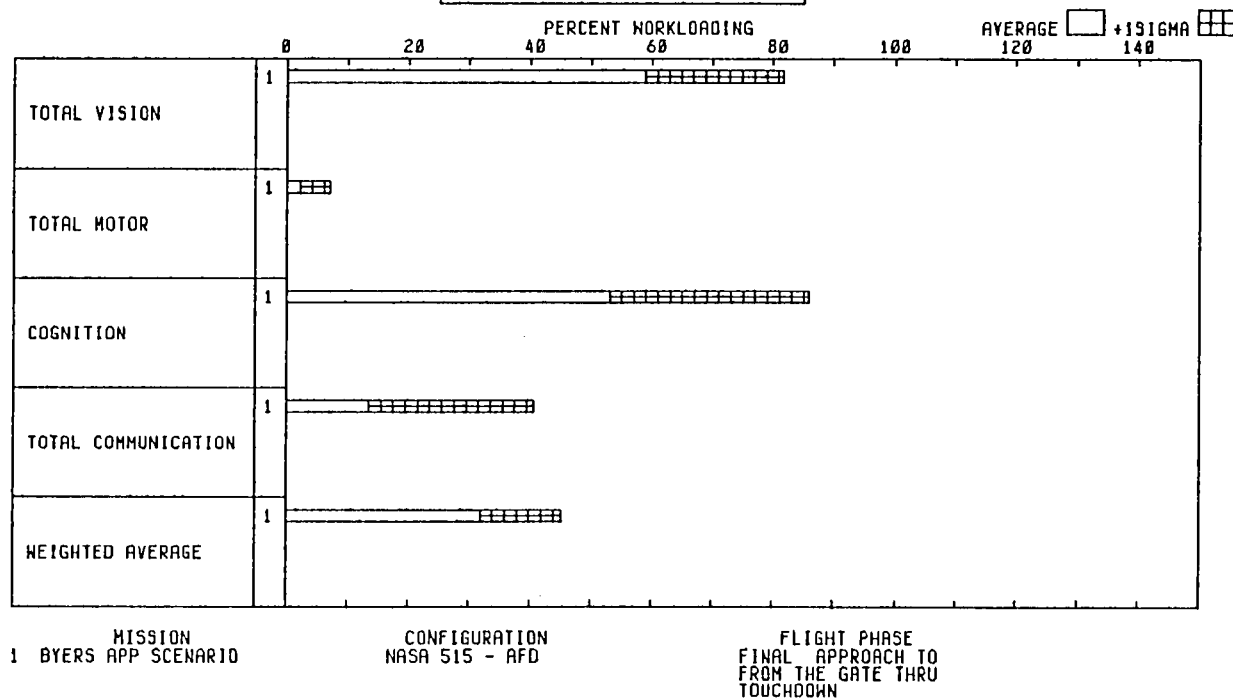
CONFIGURATION
NASA 515 - AFD

FLIGHT PHASE
COURSE DEVIATION FOR
SPACING - WATKINS TO
THE GATE

UNSHIFTED

WORKLOAD SUMMARY
CREWMEMBER - COPILOT

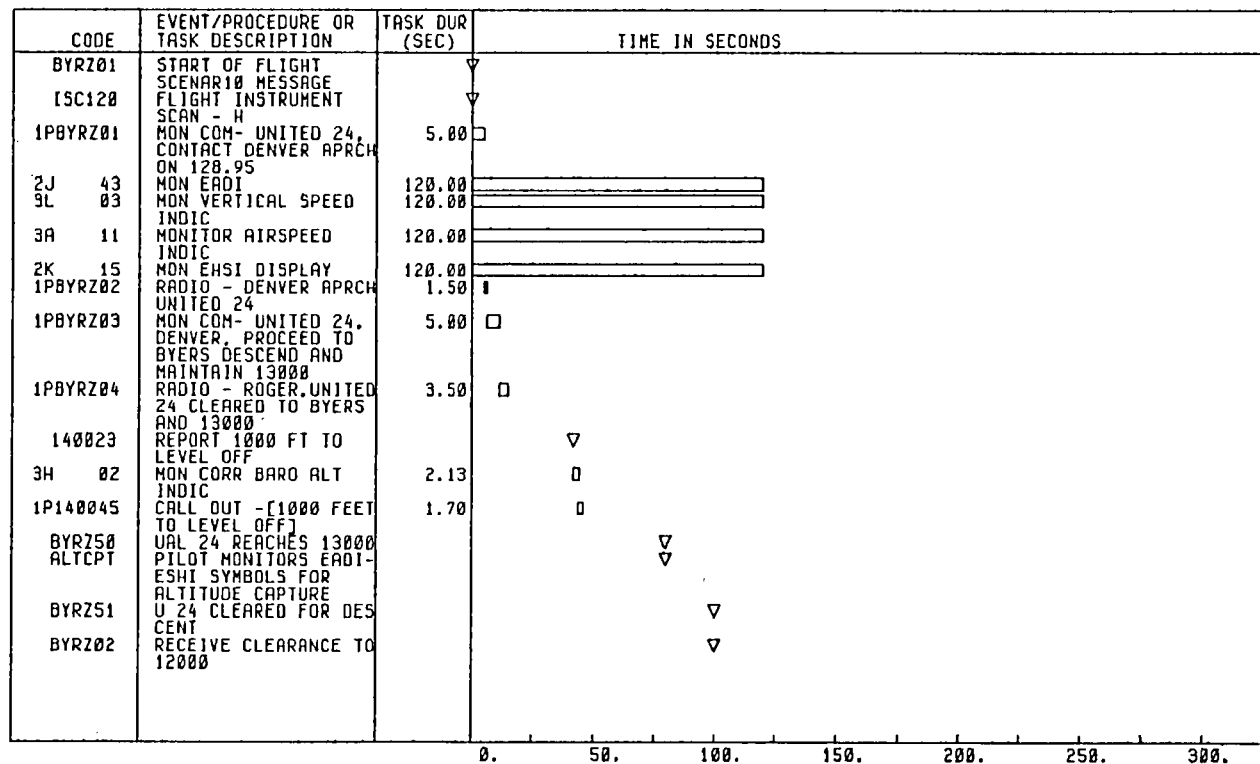
• AUG 14, 1978



UNSHIFTED





MISSION TIMELINE
 MISSION - BYERS APP SCENARIO
 CONFIGURATION - NASA 515 - AFD
 FLIGHT PHASE - BYERS APPROACH TO
 LANDING FROM ENROUTE
 CRUISE
 CREWMEMBER - COPILOT

AUG 14, 1978



CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1PBYRZ05	MON CALL- UNITED 24 DESCEND AND MAINTAIN 12000.	9.50	□
1PBYRZ06	RADIO- ROGER UNITED 24 OUT OF 13000 FOR 12000.	3.50	□
ALT2CH	ALTITUDE CHANGE PROC FOR 20 FLIGHT PATH		▽
3K 04	MON ALT ALERT BARO SET INDIC	0.76	I
3K 03	SET ALT ALERT BARO	2.72	□
2H 22	MONITOR FPA SEL MODE LT GREEN - FPA SEL MODE ENGAGED	0.77	I
BYRZ03	RECEIVG CLEARANCE TO 11000		▽
1PBYRZ07	MON COMM- UNITED 24 DESCEND AND MAINTAIN 11000.	3.50	□
1PBYRZ08	RADIO- ROGER UNITED 24 CLEARED TO 11000.	2.00	□
BYRZ52	U 24 SPEED REDUCTION TO 250 KTS		▽
BYRZ71	U 24 ENDS DESCENT FOR SPEED REDUCTION		▽
ISC605	FLIGHT INSTRUMENT SCAN - F		▽
BYRZ04	RECEIVG SPEED REDUCT TION TO 250 KTS		▽
1PBYRZ09	MON COMM- UNITED 24 REDUCE SPEED TO 250 KNOTS.	3.00	□
2J 42	MON EADI	60.00	▬
3L 02	MON VERTICAL SPEED INDIC	60.00	▬
3A 10	MONITOR AIRSPEED INDIC	60.00	▬
2K 15	MON EHSI DISPLAY	60.00	▬
1PBYRZ10	RADIO- UNITED 24, ROGER, SLOW TO 250	2.50	□
ALTCPT	PILOT MONITORS EADI- ESHI SYMBOLS FOR ALTITUDE CAPTURE		▽
ISC305	FLIGHT INSTRUMENT SCAN - E		▽
3A 10	MONITOR AIRSPEED INDIC	30.00	▬

0. 50. 100. 150. 200. 250. 300.

CODE		EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
2K	14	MON EHSI DISPLAY	30.00	
2J	42	MON EADI	30.00	
3L	02	MON VERTICAL SPEED INDIC	30.00	
ISC103		FLIGHT INSTRUMENT SCAN - 0		
2K	14	MON EHSI DISPLAY	10.00	
2J	42	MON EADI	10.00	
3L	02	MON VERTICAL SPEED INDIC	10.00	
3A	10	MONITOR AIRSPEED INDIC	10.00	
				0. 50. 100. 150. 200. 250. 300.

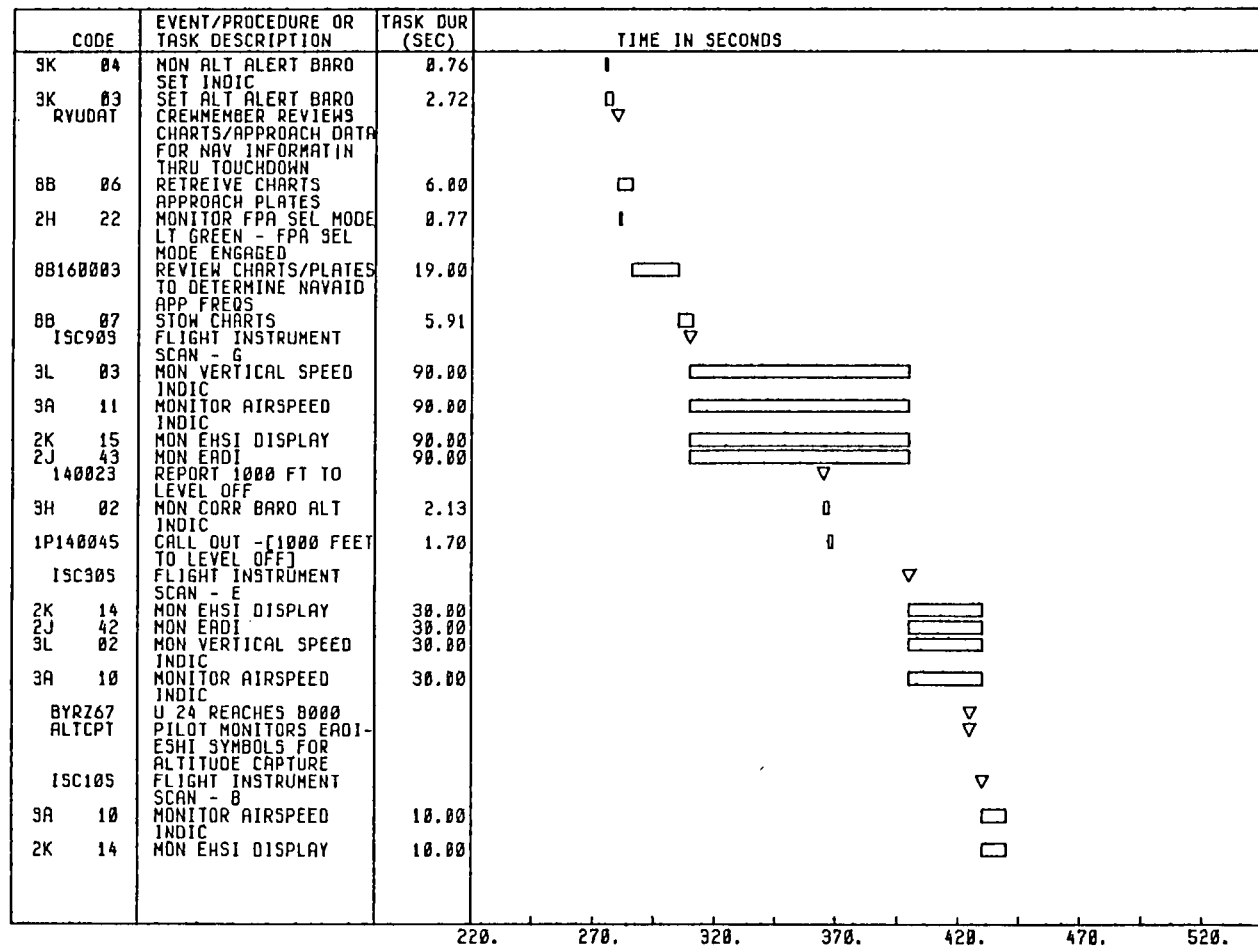
UNSHIFTED

MISSION TIMELINE
 MISSION - BYERS APP SCENARIO
 CONFIGURATION - NASA 515 - AFD
 FLIGHT PHASE - DESCENT FROM BYERS
 TO WATKINS INTER-
 SECTION
 CREWMEMBER - COPILOT

AUG 14, 1978

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
BYR253	U 24 SPEED REDUCTION TO 200 KTS		▽
ISC205	FLIGHT INSTRUMENT SCAN - D		▽
2J 43	MON EADI	20.00	▬
9L 04	MON IVSI INDIC	20.00	▬
3A 14	MON AIRSPEED INDIC	20.00	▬
2K 16	MON EHSI DISPLAY	20.00	▬
BYR254	U 24 CROSSES BYERS INTERSECTION < 11000		▽
ISC305	FLIGHT INSTRUMENT SCAN - E		▽
2K 14	MON EHSI DISPLAY	30.00	▬
2J 42	MON EADI	30.00	▬
9L 02	MON VERTICAL SPEED INDIC	30.00	▬
3A 10	MONITOR AIRSPEED INDIC	30.00	▬
160011	SET FLAPS TO FLAPS 1		▽
1P 10	MON VERBAL REPORT	0.70	I
4E 07	SET FLAP CONT LEVER TO FLAPS 1	2.69	I
4E 15	MONITOR FLAP POSITION INDICATOR	2.23	I
4N 03	MON LE FLAPS-IN- TRANSIT LT ON	1.17	I
4N 04	MON LE FLAPS-IN- TRANSIT LT OFF	1.17	I
4E 16	CHECK FLAP LEVER AND POSITION INDIC AGREE	2.50	I
1P160058	CALL OUT -[FLAPS 1]	0.70	I
BYR261	U 24 REACHS 200 KTS		▽
BYR255	U 24 BEGINS STAR DESCENT TO 8000		▽
ALT2CH	ALTITUDE CHANGE PROC FOR 2D FLIGHT PATH		▽

220. 270. 320. 370. 420. 470. 520.



CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
2J 42	MON EADI	10.00	□
3L 02	MON VERTICAL SPEED INDIC	10.00	
170007	TUNE NAV RADIOS FOR MLS APPROACH.		▽
0B 06	RETRIEVE CHARTS	6.00	□
0B160003	APPROACH PLATES		
	REVIEW CHARTS/PLATES TO DETERMINE NAVAID APP FREQS	5.00	□
5U 01	MON NAV-1 FREQ INDIC	5.00	□
5U 02	SET NAV-1 FREQ - WHOLE NO.S	3.00	□
5U 03	SET NAV-1 FREQ - FRACTIONS	2.00	□
ISC10S	FLIGHT INSTRUMENT SCAN - B		▽
2J 42	MON EADI	10.00	□
3L 02	MON VERTICAL SPEED INDIC	10.00	
3A 10	MONITOR AIRSPEED INDIC	10.00	□
2K 14	MON EHSI DISPLAY	10.00	□
BYRZ70	U 24 CROSS WATKINS < 200 KTS < 8000, RECEIVE METER/SPACING INSTRUCTIONS		▽
BYRZ07	RECEIVE METER/SPACE INSTRUCTIONS		
1PBYRZ16	MSG- UNITED 24 TURN RIGHT HEADING 350 REDUCE TO APPROACH SPEED (150KTS)	6.00	□
ISC10S	FLIGHT INSTRUMENT SCAN - B		▽
2K 14	MON EHSI DISPLAY	10.00	□
2J 42	MON EADI	10.00	
3L 02	MON VERTICAL SPEED INDIC	10.00	□
3A 10	MONITOR AIRSPEED INDIC	10.00	□
1PBYRZ17	RADIO- UNITED 24, ROGER, RIGHT TO 350 SLOW TO APPROACH SPD	5.00	□
5V 01	MON NAV-2 FREQ INDIC	4.91	□
5V 02	SET NAV-2 FREQ - WHOLE NO.S	2.93	

220. 270. 320. 370. 420. 470. 520.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
5V 03	SET NAV-2 FREQ - FRACTIONS	1.98	0
1P170026	CALL OUT -[RWY MLS FREQ ON NAV 1 AND NAV 2]	3.00	0

220. 270. 320. 370. 420. 470. 520.

UNSHIFTED

MISSION TIMELINE
 MISSION - BYERS APP SCENARIO
 CONFIGURATION - NASA 515 - AFD
 FLIGHT PHASE - COURSE DEVIATION FOR
 SPACING - WATKINS TO
 THE GATE
 CREWMEMBER - COPILOT

AUG 14, 1978

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
15C105	FLIGHT INSTRUMENT SCAN - B		▽
2J 42	MON EADI	10.00	□
3L 02	MON VERTICAL SPEED	10.00	□
3A 10	INDIC MONITOR AIRSPEED	10.00	□
2K 14	INDIC MON EHSI DISPLAY	10.00	□
BYR263	SET FLAPS TO POS 5		▽
160017	SET FLAPS TO FLAPS 5		▽
160018	FLAP SET PROCEDURE		▽
1P 10	MON VERBAL REPORT	0.70	I
4E 09	SET FLAP CONT LEVER TO FLAPS 5	2.69	□
4N 03	MON LE FLAPS-IN- TRANSIT LT ON	1.17	I
4E 15	MONITOR FLAP POSITION INDICATOR	2.23	□
4E 16	CHECK FLAP LEVER AND POSITION INDIC AGREE	2.50	□
4N 04	MON LE FLAPS-IN- TRANSIT LT OFF	1.17	I
1P160061	CALL OUT -[FLAPS 5]	0.70	I
160025	SET FLAPS TO FLAPS 15		▽
160018	FLAP SET PROCEDURE		▽
1P 10	MON VERBAL REPORT	0.70	I
4E 11	SET FLAP CONT LEVER TO FLAPS 15	2.46	□
4N 03	MON LE FLAPS-IN- TRANSIT LT ON	1.17	I
4E 15	MONITOR FLAP POSITION INDICATOR	2.23	□
4E 16	CHECK FLAP LEVER AND POSITION INDIC AGREE	2.50	□

400. 530. 580. 630. 680. 730. 780.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
BYR208	RECEIVE INSTRUCTIONS TO PROCEED DIRECT TO THE GATE		▽
1PBYRZ18	MSG- UNITED 24, CLEAR DIRECT TO APRCH GATE, CONTACT TOWER AT 0M 120.0	6.00	□
4N 04	MON LE FLAPS-IN-TRANSIT LT OFF	1.17	I
1P160062	CALL OUT - [FLAPS 15]	0.70	I
1PBYRZ19	RADIO- ROGER UNITED 24 CLEARED DIRECT TO THE GATE, TOWER AT 0M 120.0	6.00	□
ISC120	FLIGHT INSTRUMENT SCAN - H		▽
2K 15	MON EHSI DISPLAY	120.00	
2J 43	MON EADI	120.00	
3L 03	MON VERTICAL SPEED INDIC	120.00	
3A 11	MONITOR AIRSPEED INDIC	120.00	
ALT2CH	ALTITUDE CHANGE PROC FOR 20 FLIGHT PATH		▽
3K 03	SET ALT ALERT BARO	2.72	□
3K 04	MON ALT ALERT BARO	0.76	I
2H 22	SET INDIC MONITOR FPA SEL MODE LT GREEN - FPA SEL MODE ENGAGED	0.77	I
ISC120	FLIGHT INSTRUMENT SCAN - H		▽
3L 03	MON VERTICAL SPEED INDIC	120.00	
3A 11	MONITOR AIRSPEED INDIC	120.00	
2K 15	MON EHSI DISPLAY	120.00	
2J 43	MON EADI	120.00	
BYRZ69	U 24 REACHES 6500		▽
ALTCPT	PILOT MONITORS EADI-ESHI SYMBOLS FOR ALTITUDE CAPTURE		▽
ISC305	FLIGHT INSTRUMENT SCAN - E		▽
2J 42	MON EADI	30.00	
3L 02	MON VERTICAL SPEED INDIC	30.00	

400. 530. 580. 630. 680. 730. 780.

7

UNSHIFTED

MISSION TIMELINE
 MISSION - BYERS APP SCENARIO
 CONFIGURATION - NASA 515 - AFD
 FLIGHT PHASE - FINAL APPROACH TO
 FROM THE GATE THRU
 TOUCHDOWN
 CREWMEMBER - COPILOT

AUG 14, 1978

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
BYR258	U 24 CROSSES GATE AT 6500 AND 150 KTS, SLOWS TO 120KTS, FLAPS ON SCHEO		▽
160060 4D 03	EXTEND LANDING GEAR SET LANDING GEAR LEVER TO DOWN POSITION	3.27	▽ □
4D 05	MONITOR NOSE GEAR DOWN AND LOCKED LT ON	0.54	I
4D 09	MONITOR LEFT/RT GEAR DOWN AND LOCKED LT ON	0.54	I
160053 25	SET FLAPS TO FLAPS		▽
160010 LNDCLR	FLAP SET PROCEDURE CONTACT TOWER FOR FINAL LANDING CLEAR- ANCE		▽ ▽
1P 10	MON VERBAL REPORT	0.70	I
1B 05	SET VHF-2 COMM TFR SW TO LEFT	2.39	□
4E 12	SET FLAP CONT LEVER TO FLAPS 25	2.90	□
1B 17	COMM VIA VHF-2	5.00	□
1B 25	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	5.00	□
4N 03	MON LE FLAPS-IN- TRANSIT LT ON	1.17	I
4E 15	MONITOR FLAP POSITION INDICATOR	2.23	□
4E 16	CHECK FLAP LEVER AND POSITION INDIC AGREE	2.50	□

800. 850. 900. 950. 1000. 1050. 1100.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1PLNDCL2	RADIO COMM-[DENVER TOWER, THIS IS U 24 OVER THE GATE INBOUND FOR LNDNG	4.00	□
4N 04	MON LE FLAPS-IN-TRANSIT LT OFF	1.17	!
1P160070	CALL OUT -[FLAPS 25]	0.70	!
1PLNDCL3	ZERO EIGHT, OVER]	1.00	!
1B 19	MON VHF-2 COMM AUDIO	7.00	□
1PLNDCL4	MON RADIO COMM -[UNITED 24, DENVER TOWER, ROGER, CLEAR TO LAND RUNWAY TWO	4.00	□
1SC105	FLIGHT INSTRUMENT SCAN - 0		▽
3L 02	MON VERTICAL SPEED INDIC	10.00	□
3A 10	MONITOR AIRSPEED INDIC	10.00	□
2K 14	MON EHSI DISPLAY	10.00	□
2J 42	MON EADI	10.00	□
1PLNDCL5	SIX, WIND TWO ONE ZERO DEGREES AT ZERO NINER.]	3.00	□
1B 15	COMM VIA VHF-2	1.70	□
1PLNDCL1	RADIO COMM -[U24, ROGER]	1.70	□
1B 29	ACTUATE COMM 2 PUSH-TO-TALK SW	1.70	□
160059	CROSS RMY XX OUTER MARKER		▽
1P 13	MON VERBAL REPORT	1.00	□
1SC105	FLIGHT INSTRUMENT SCAN - 0		▽
2K 14	MON EHSI DISPLAY	10.00	□
2J 42	MON EADI	10.00	□
3L 02	MON VERTICAL SPEED INDIC	10.00	□
3A 10	MONITOR AIRSPEED INDIC	10.00	□
160057	SET FLAPS TO FLAPS 40		▽
160010	FLAP SET PROCEDURE		▽
1P 10	MON VERBAL REPORT	0.70	□
4E 14	SET FLAP CONT LEVER TO FLAPS 40	2.92	□

800. 850. 900. 950. 1000. 1050. 1100.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
4N 03	MON LE FLAPS-IN-TRANSIT LT ON	1.17	I
4E 15	MONITOR FLAP POSITION INDICATOR	2.23	0
4E 16	CHECK FLAP LEVER AND POSITION INDIC AGREE	2.50	0
4N 04	MON LE FLAPS-IN-TRANSIT LT OFF	1.17	I
1P160073	CALL OUT -[FLAPS 40]	0.70	I
160062	LANDING CHECKLIST		▽
1P160076	CALL OUT -[RECALL]	0.60	I
1P160077	CALL OUT -[CHECKED]	0.40	I
1P160078	CALL OUT -[SPEED BRAKES]	0.70	I
1P 02	MON VERBAL REPORT	1.30	I
1P160080	CALL OUT -[LANDING GEAR]	0.70	I
1P160082	CALL OUT -[FLAPS]	0.40	I
1P160083	CALL OUT -[FORTY, GREEN LIGHT]	1.10	I
1P160081	CALL OUT -[DOWN, THREE GREEN]	1.00	I
1P160084	CALL OUT -[CHECKLIST COMPLETE]	1.10	I
160018	FLAP SET PROCEDURE		▽
1P 10	MON VERBAL REPORT	0.70	I
4N 03	MON LE FLAPS-IN-TRANSIT LT ON	1.17	I
4E 15	MONITOR FLAP POSITION INDICATOR	2.23	0
4E 16	CHECK FLAP LEVER AND POSITION INDIC AGREE	2.50	0
4N 04	MON LE FLAPS-IN-TRANSIT LT OFF	1.17	I
ISC905	FLIGHT INSTRUMENT SCAN - 6		▽
2J 43	MON EADI	90.00	
3L 03	MON VERTICAL SPEED INDIC	90.00	
3A 11	MONITOR AIRSPEED INDIC	90.00	
2K 15	MON EHSI DISPLAY	90.00	
160065	DESCEND THRU -DECISION HEIGHT		▽
3R 12	MON DECISION HGT LT ON FDI	2.50	0

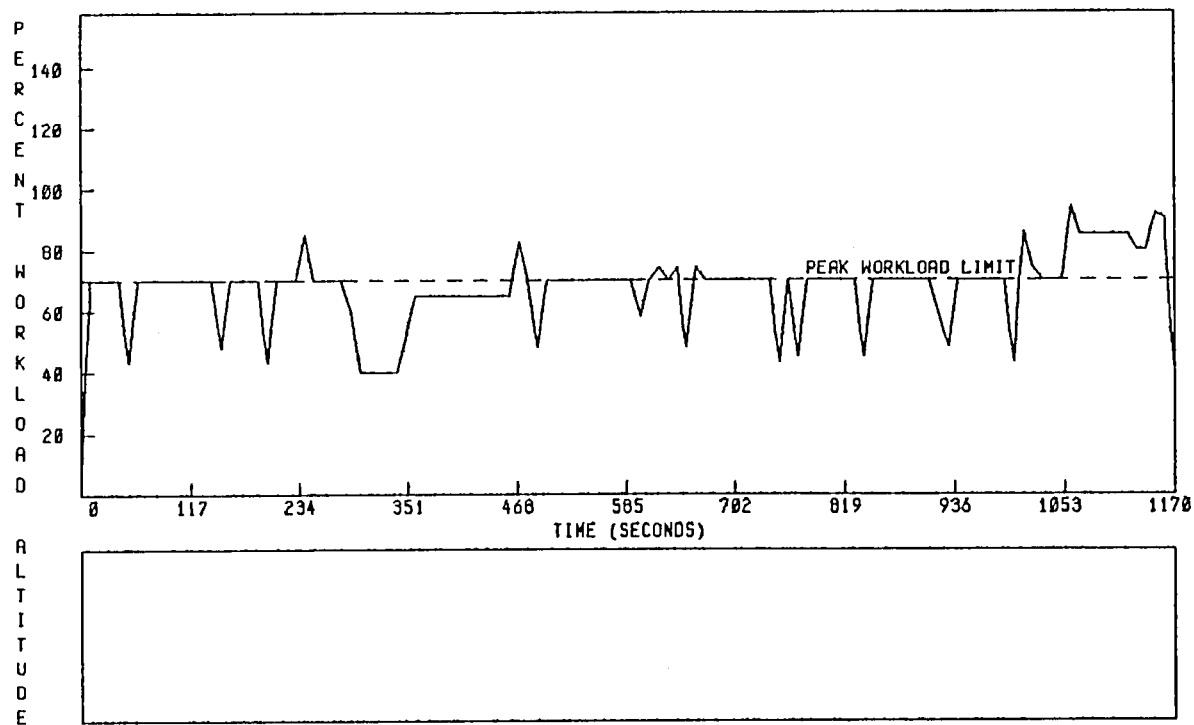
800. 850. 900. 950. 1000. 1050. 1100.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1P160000	CALL OUT -[DECISION HEIGHT]	0.00	I
ISC10S	FLIGHT INSTRUMENT SCAN - B		▽
3A 10	MONITOR AIRSPEED INDIC	10.00	□
2K 14	MON EHSI DISPLAY	10.00	□
2J 42	MON EADI	10.00	□
3L 02	MON VERTICAL SPEED INDIC	10.00	□
ISC10S	FLIGHT INSTRUMENT SCAN - B		▽
2K 14	MON EHSI DISPLAY	10.00	□
2J 42	MON EADI	10.00	□
3L 02	MON VERTICAL SPEED INDIC	10.00	□
3A 10	MONITOR AIRSPEED INDIC	10.00	□
			800. 850. 900. 950. 1000. 1050. 1100.

UNSHIFTED
OCT 19, 1978

WORKLOAD HISTOGRAM
CREWMEMBER- PILOT
CHANNEL- TOTAL VISION
CONFIGURATION- AFD SIM DATA

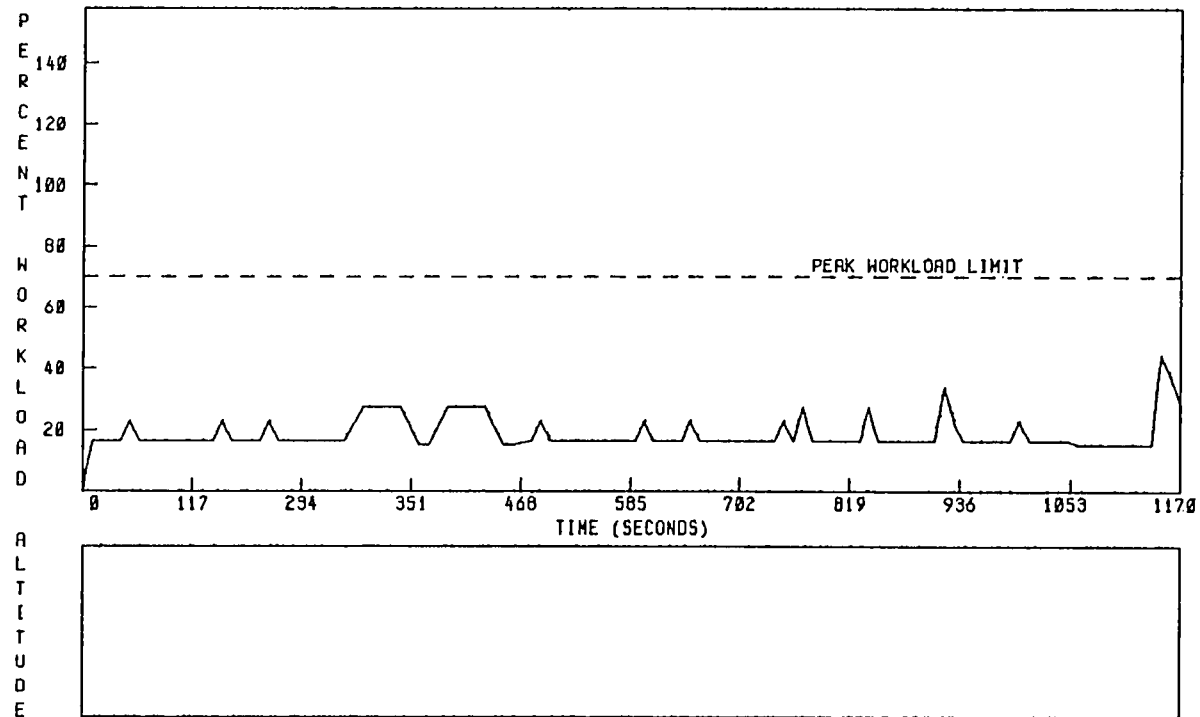
MISSION
DENVER LMNTHC APP/LN
WITH HOLDING PTN -



UNSHIFTED
OCT 19, 1978

WORKLOAD HISTOGRAM
CREWMEMBER- PILOT
CHANNEL- TOTAL MOTOR
CONFIGURATION- AFD SIM DATA

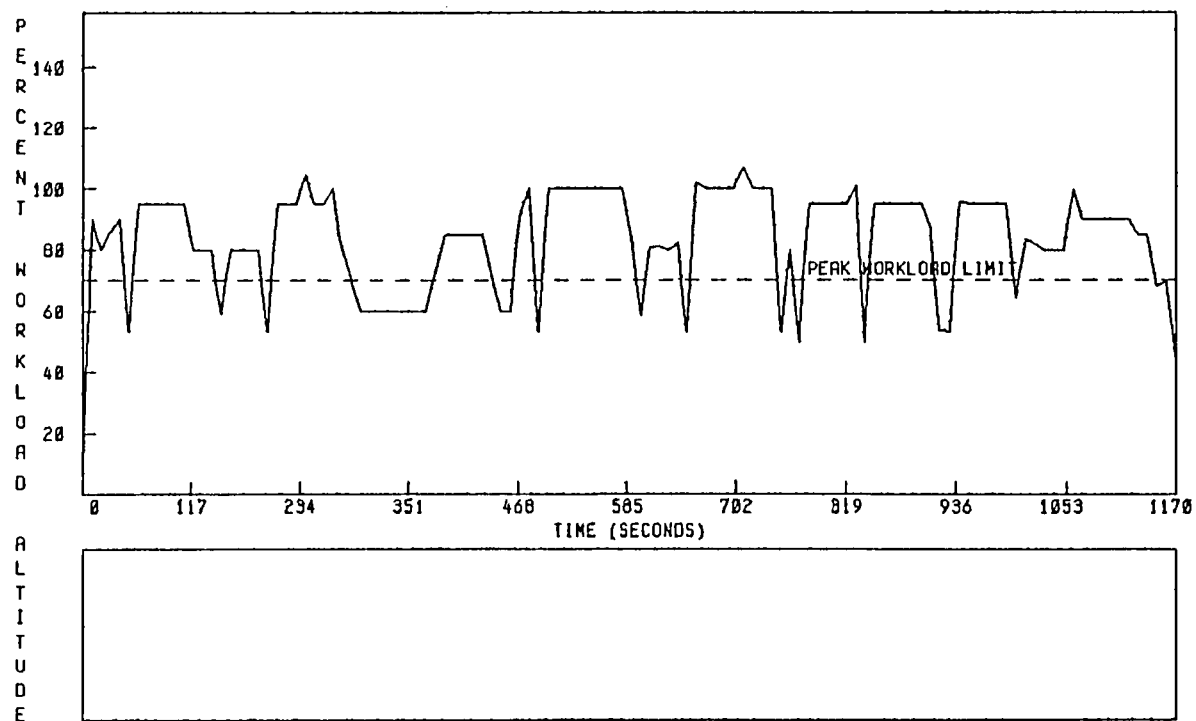
MISSION
DENVER LHMTC APP/LN
WITH HOLDING PTN -



UNSHIFTED
OCT 19, 1978

WORKLOAD HISTOGRAM
CREWMEMBER- PILOT
CHANNEL- COGNITION
CONFIGURATION- AFD SIM DATA

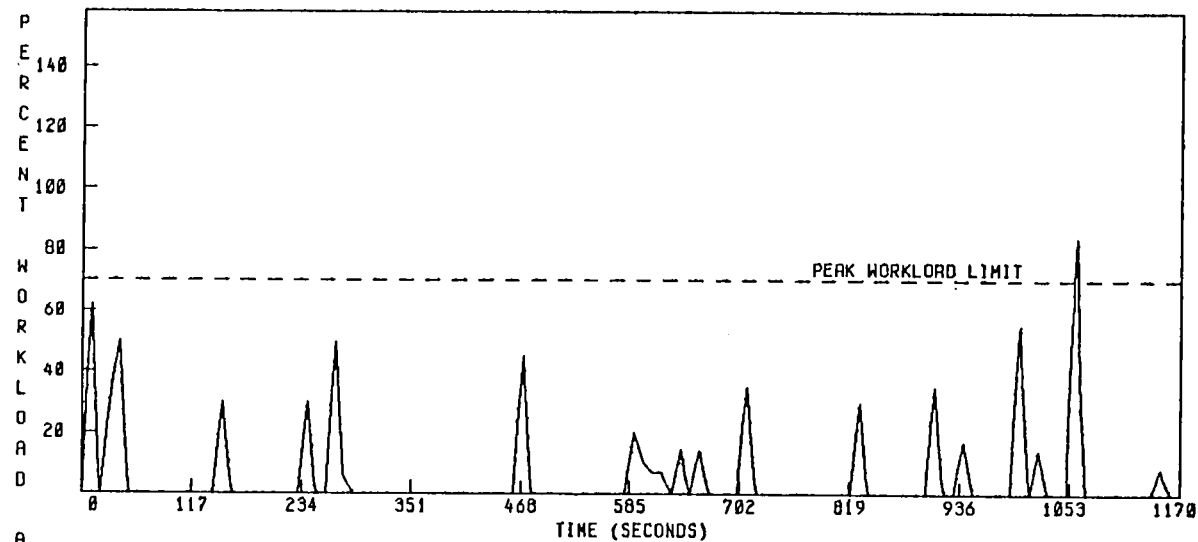
MISSION
DENVER LMNTMC APP/LN
WITH HOLDING PTN -



UNSHIFTED
OCT 19, 1978

WORKLOAD HISTOGRAM
CREWMEMBER- PILOT
CHANNEL- TOTAL COMMUNICATION
CONFIGURATION- AFD SIN DATA

MISSION
DENVER LMNTNC APP/LN
WITH HOLDING PTN -

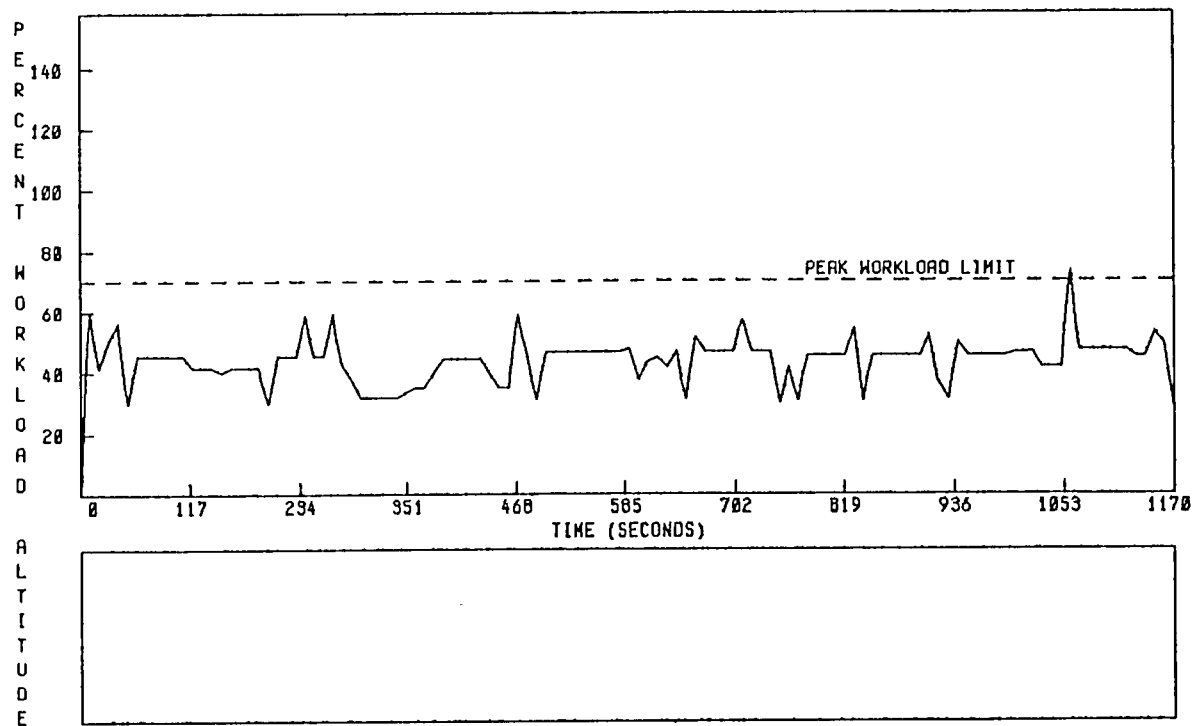


ALTITUDE

UNSHIFTED
OCT 19, 1978

WORKLOAD HISTOGRAM
CREWMEMBER- PILOT
CHANNEL- WEIGHTED CHANNEL AVERAGE
CONFIGURATION- AFD SIM DATA

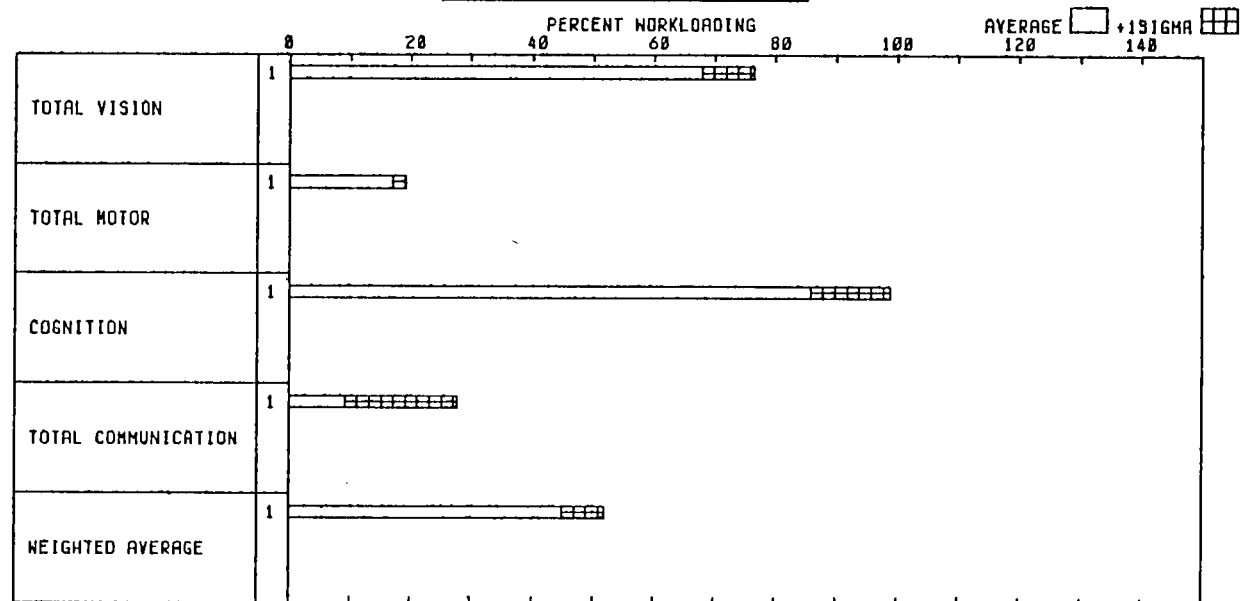
MISSION
DENVER LMNTMC APP/LN
WITH HOLDING PTN -



UNSHIFTED

WORKLOAD SUMMARY
CREWMEMBER - PILOT

OCT 19, 1978



MISSION
1 DENVER LMNTMC APP/LN
WITH HOLDING PTN -

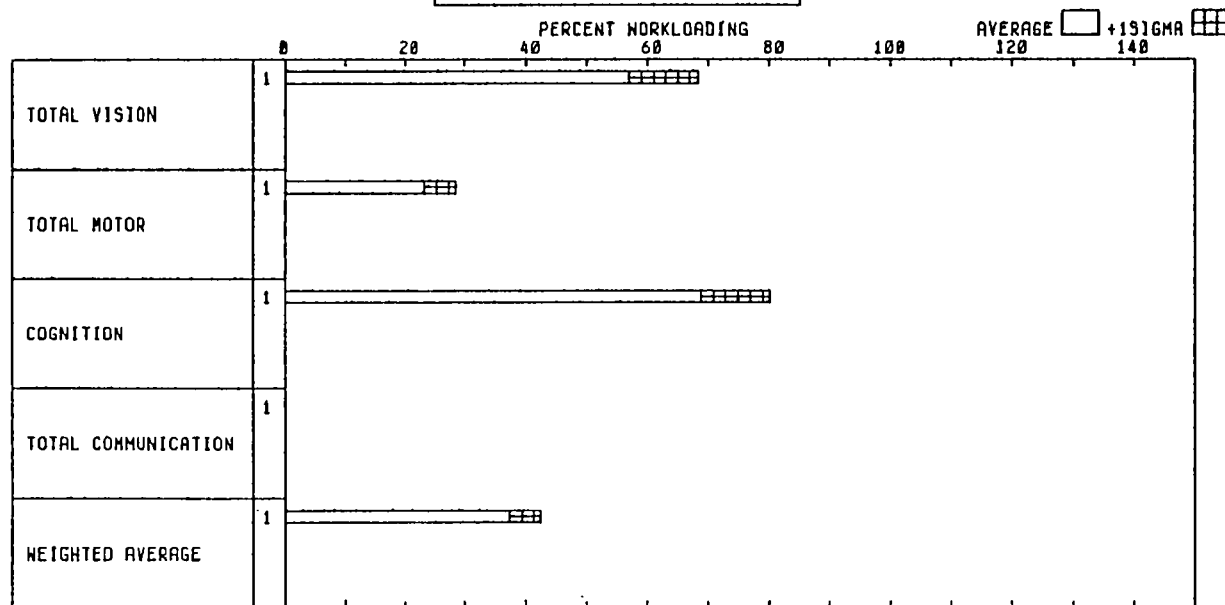
CONFIGURATION
AFD SIM DATA

FLIGHT PHASE
LONGMONT APPROACH TO
LANDING WITH HOLDING
PATTERN

UNSHIFTED

WORKLOAD SUMMARY CREWMEMBER - PILOT

OCT 19, 1978



MISSION
1 DENVER LMNTMC APP/LN
WITH HOLDING PTN -

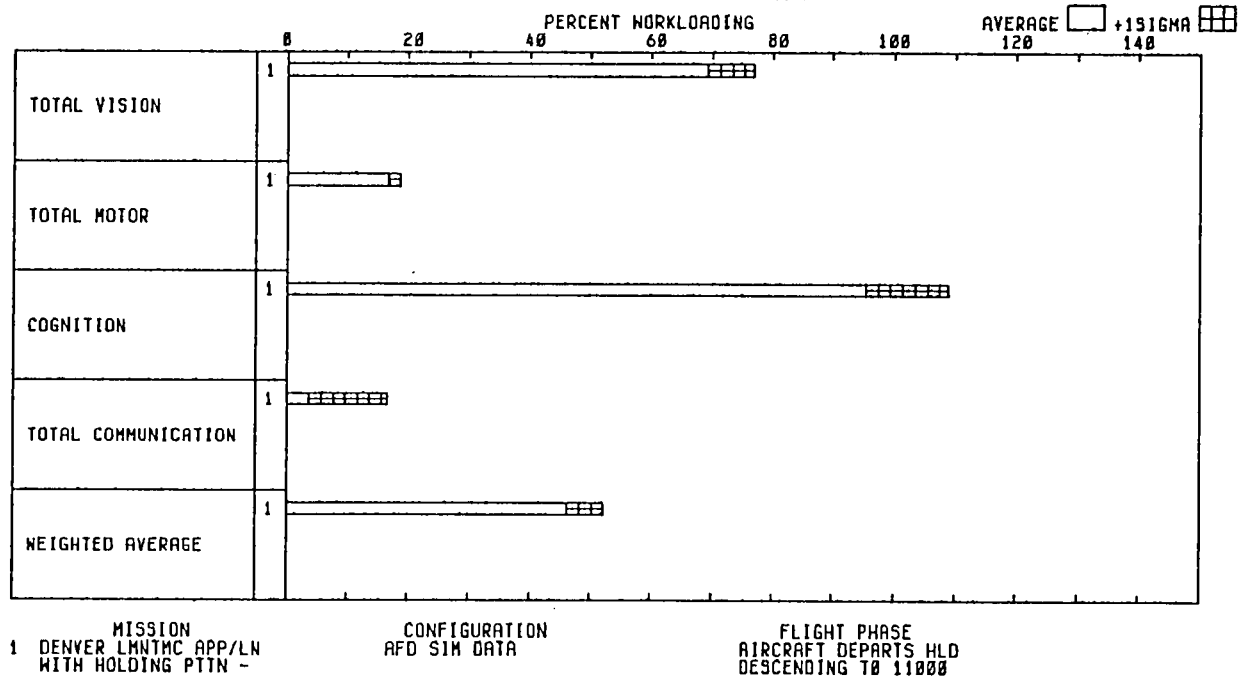
CONFIGURATION
AFO SIM DATA

FLIGHT PHASE
HOLDING PATTERN FOR
LONGMONT APP BETWEEN
MEEKER AND LONGMNT

UNSHIFTED

WORKLOAD SUMMARY
CREWMEMBER - PILOT

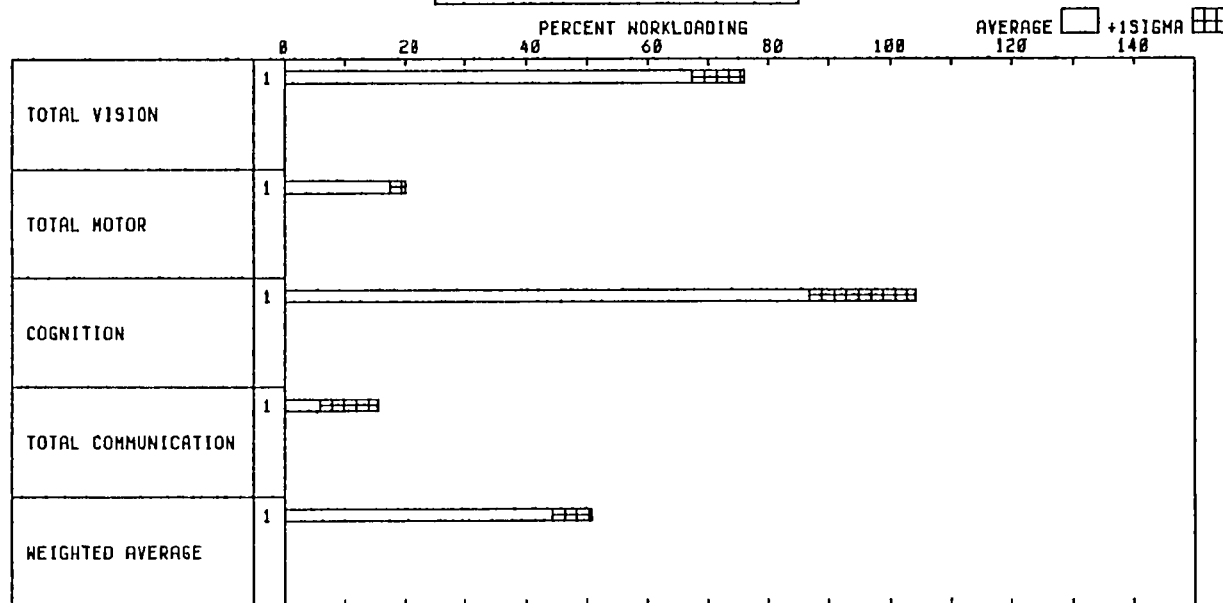
OCT 19, 1978



UNSHIFTED

WORKLOAD SUMMARY CREWMEMBER - PILOT

OCT 19, 1978



MISSION
1 DENVER LMNTMC APP/LN
WITH HOLDING PTN -

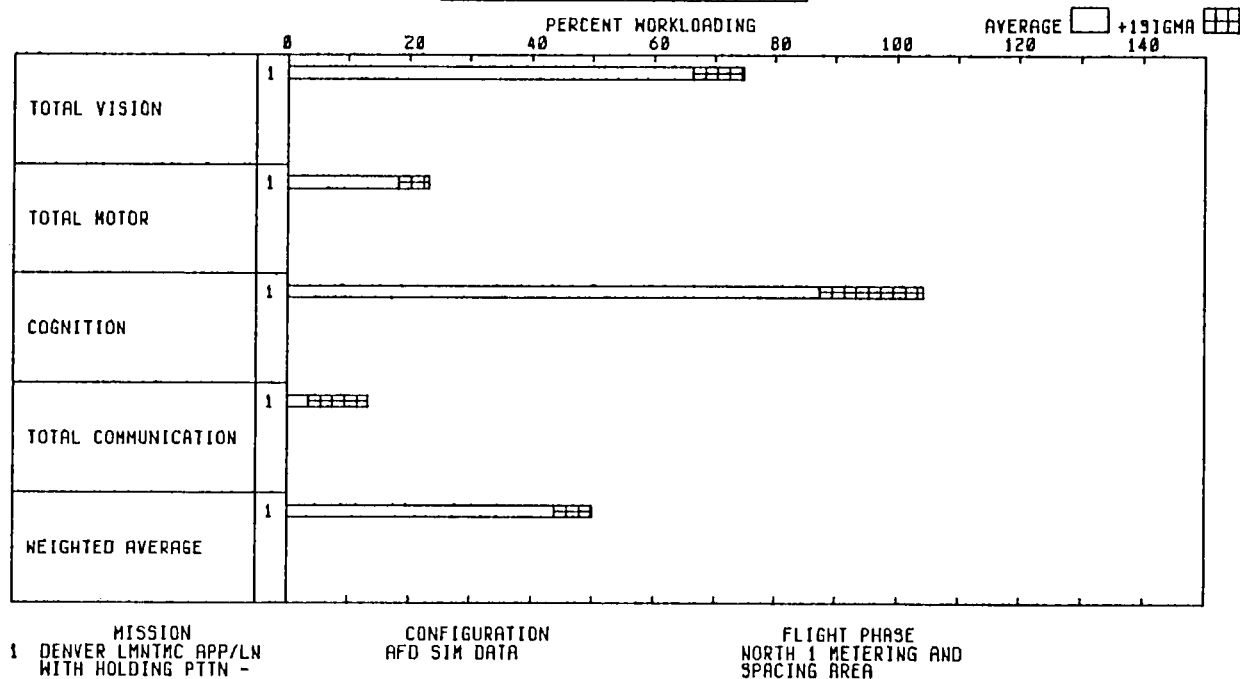
CONFIGURATION
AFD SIM DATA

FLIGHT PHASE
AIRCRAFT DESCENDS
TO 8800 AND SLOW3
TO 170 KTS

UNSHIFTED

WORKLOAD SUMMARY
CREWMEMBER - PILOT

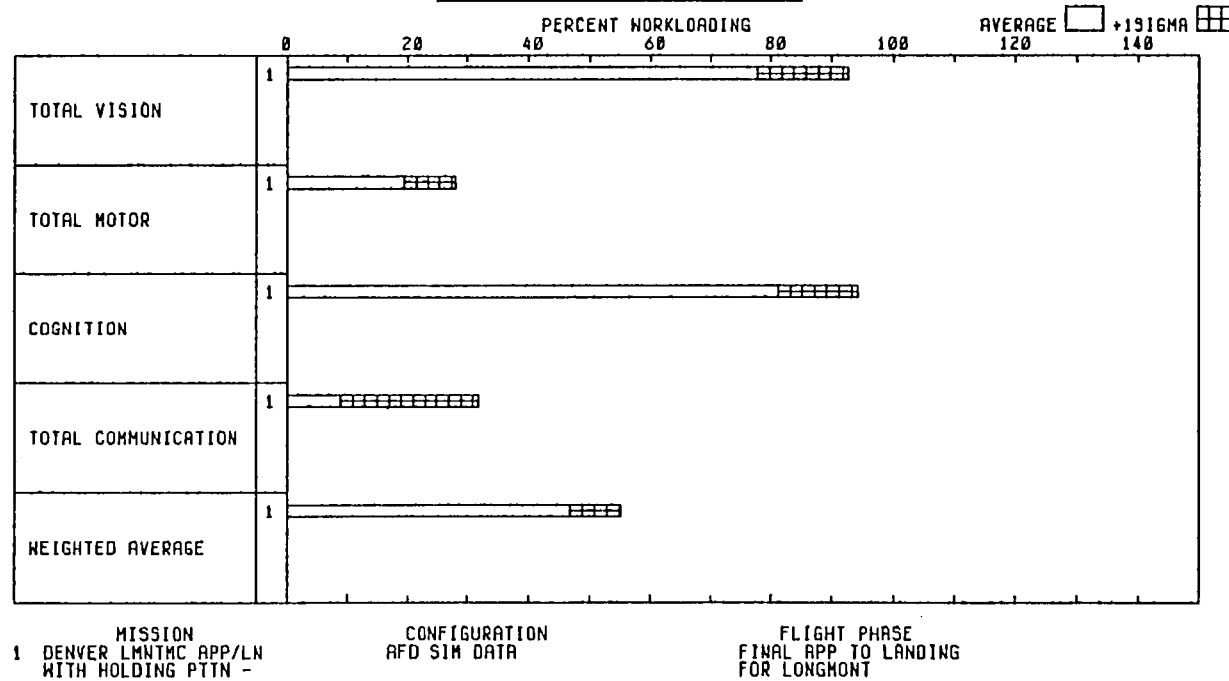
OCT 19, 1978



UNSHIFTED

WORKLOAD SUMMARY CREWMEMBER - PILOT

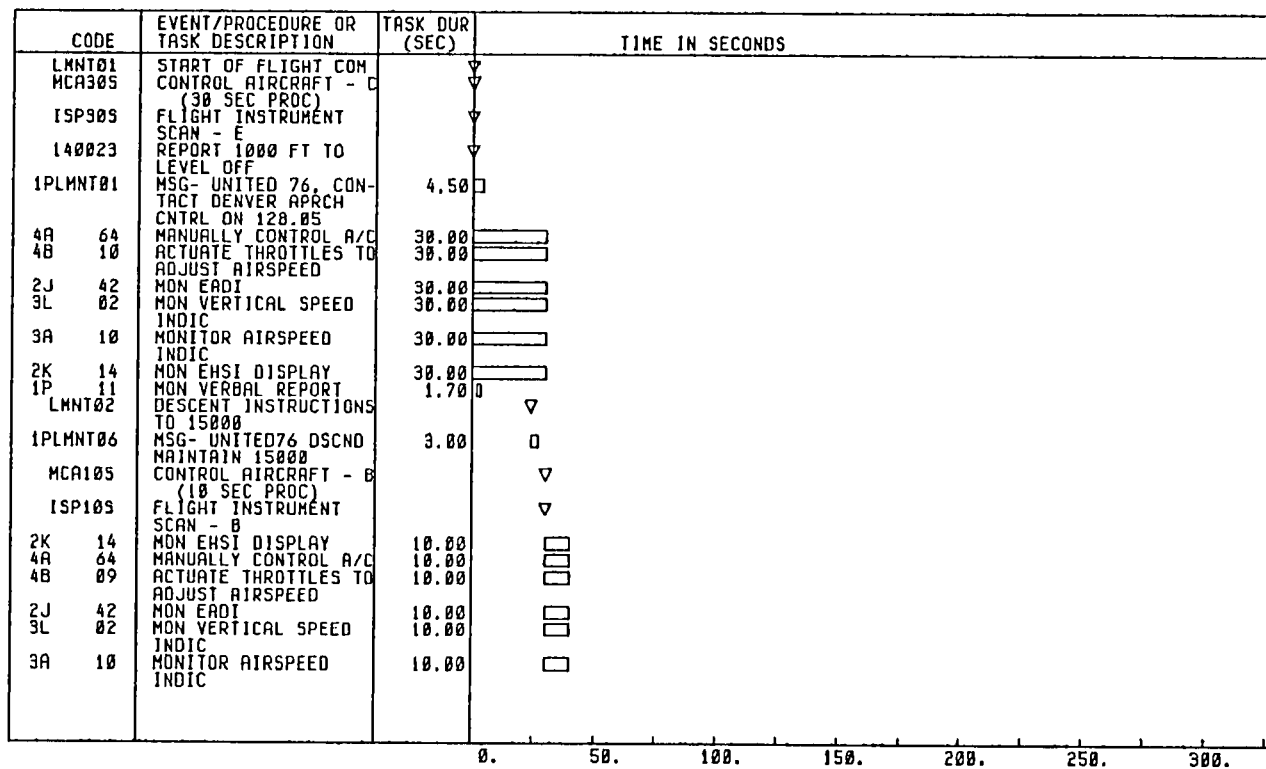
OCT 19, 1978

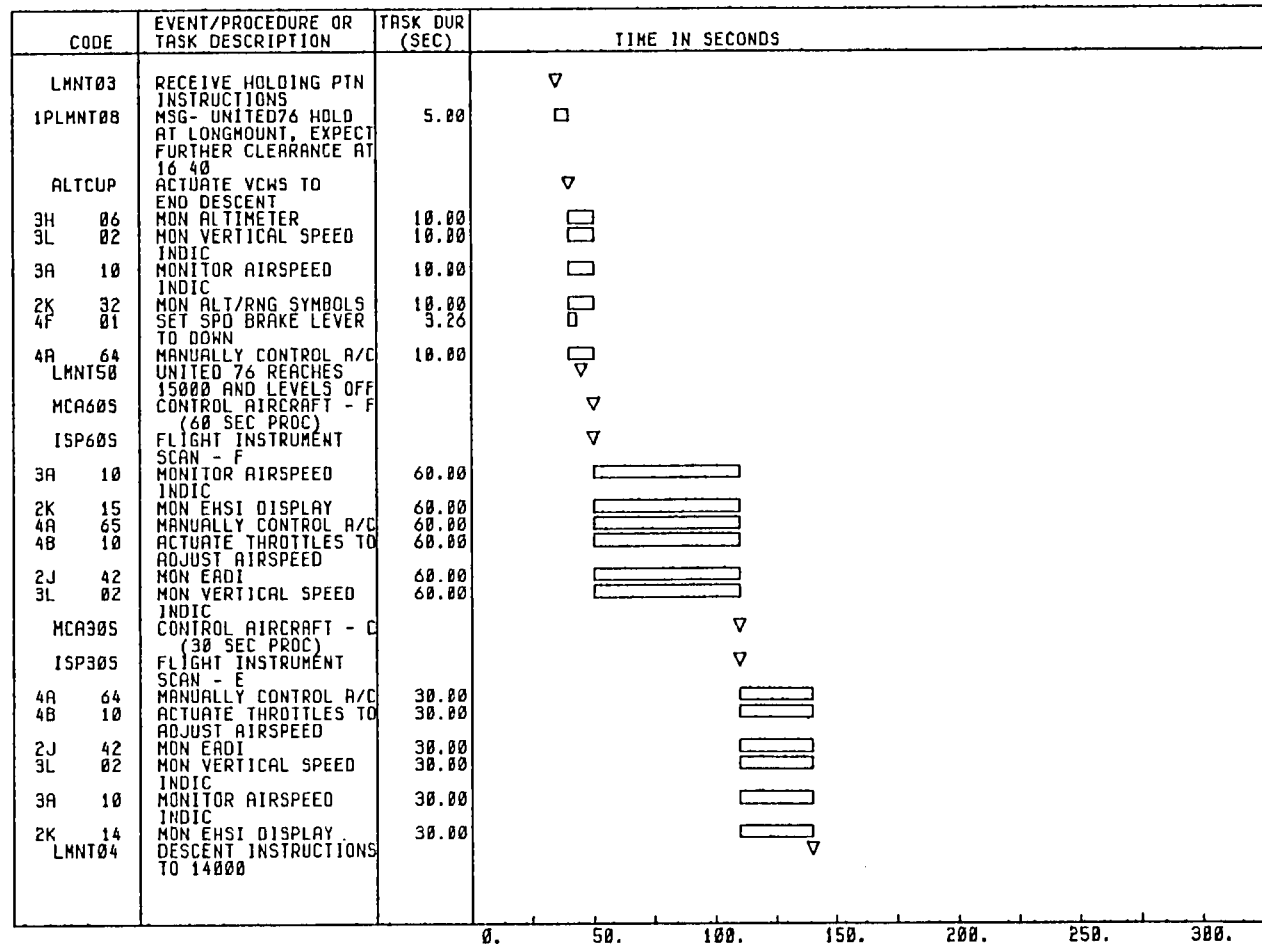


UNSHIFTED

MISSION TIMELINE
 MISSION - DENVER LMNTMC APP/LN
 WITH HOLDING PTN -
 CONFIGURATION - AFD SIM DATA
 FLIGHT PHASE - LONGMONT APPROACH TO
 LANDING WITH HOLDING
 PATTERN
 CREWMEMBER - PILOT

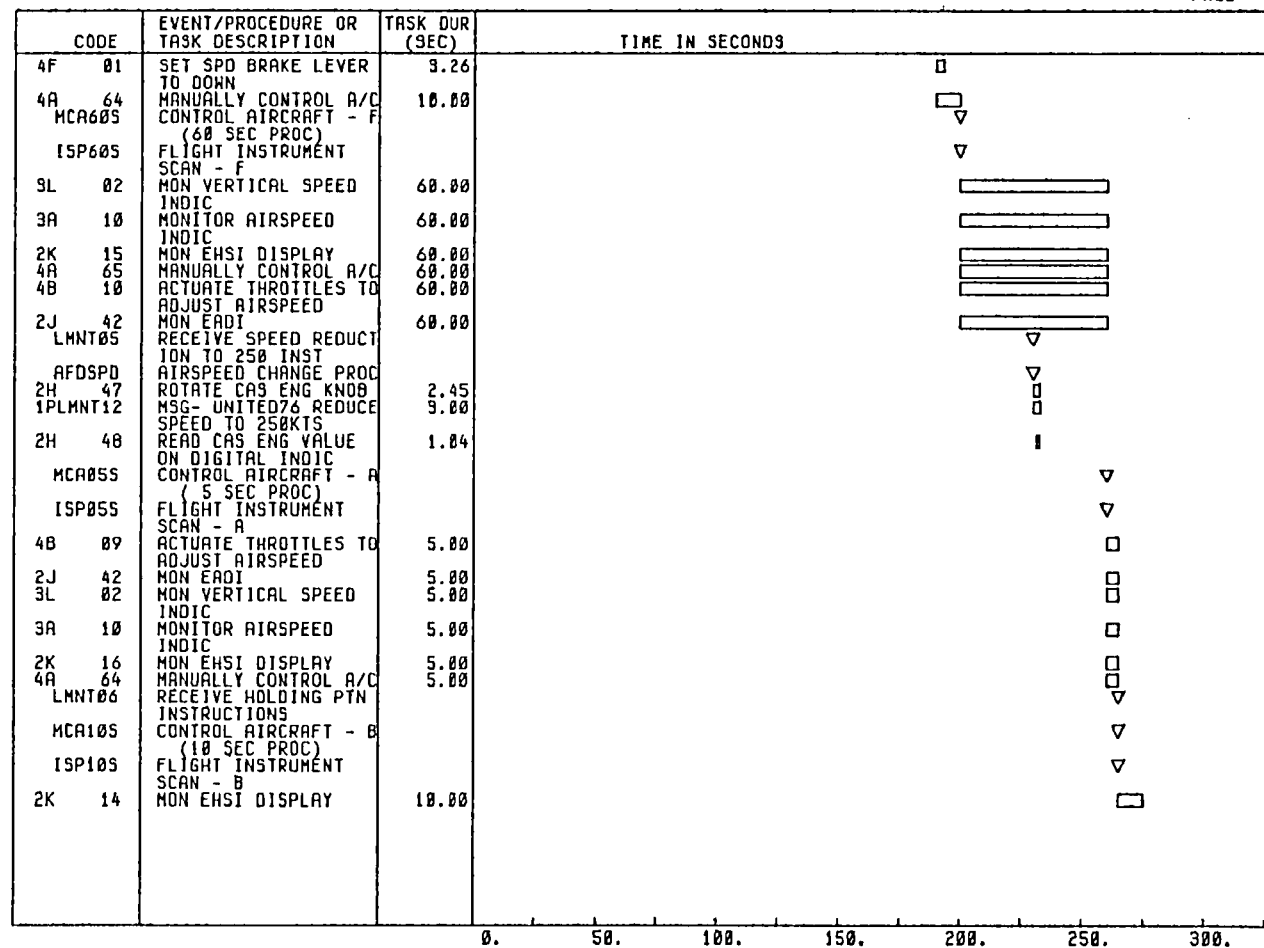
OCT 19, 1978





CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
ALTCN	ACTUATE VCWS TO START DESCENT		▽
1PLMNT10	MSG- UNITED76 DSCND MAINTAIN 14000	3.00	□
4F 03	SET SPEED BRAKE LEVER TO FLT DETENT	3.26	□
4A 64	MANUALLY CONTROL A/C	10.00	□
3H 06	MON ALTIMETER	10.00	□
3L 02	MON VERTICAL SPEED	10.00	□
3A 10	INDIC MONITOR AIRSPEED	10.00	□
2K 32	MON ALT/RNG SYMBOLS	10.00	□
MCA303	CONTROL AIRCRAFT - C (30 SEC PROC)	10.00	▽
ISP305	FLIGHT INSTRUMENT SCAN - E		▽
3A 10	MONITOR AIRSPEED	30.00	□
2K 14	MON EHSI DISPLAY	30.00	□
4A 64	MANUALLY CONTROL A/C	30.00	□
4B 10	ACTUATE THROTTLES TO ADJUST AIRSPEED	30.00	□
2J 42	MON EADI	30.00	□
3L 02	MON VERTICAL SPEED	30.00	□
MCA105	CONTROL AIRCRAFT - B (10 SEC PROC)		▽
ISP105	FLIGHT INSTRUMENT SCAN - B		▽
4A 64	MANUALLY CONTROL A/C	10.00	□
4B 09	ACTUATE THROTTLES TO ADJUST AIRSPEED	10.00	□
2J 42	MON EADI	10.00	□
3L 02	MON VERTICAL SPEED	10.00	□
3A 10	INDIC MONITOR AIRSPEED	10.00	□
2K 14	MON EHSI DISPLAY	10.00	□
ALTCUP	ACTUATE VCWS TO END DESCENT		▽
3H 06	MON ALTIMETER	10.00	□
3L 02	MON VERTICAL SPEED	10.00	□
3A 10	INDIC MONITOR AIRSPEED	10.00	□
2K 32	MON ALT/RNG SYMBOLS	10.00	□

0. 50. 100. 150. 200. 250. 300.



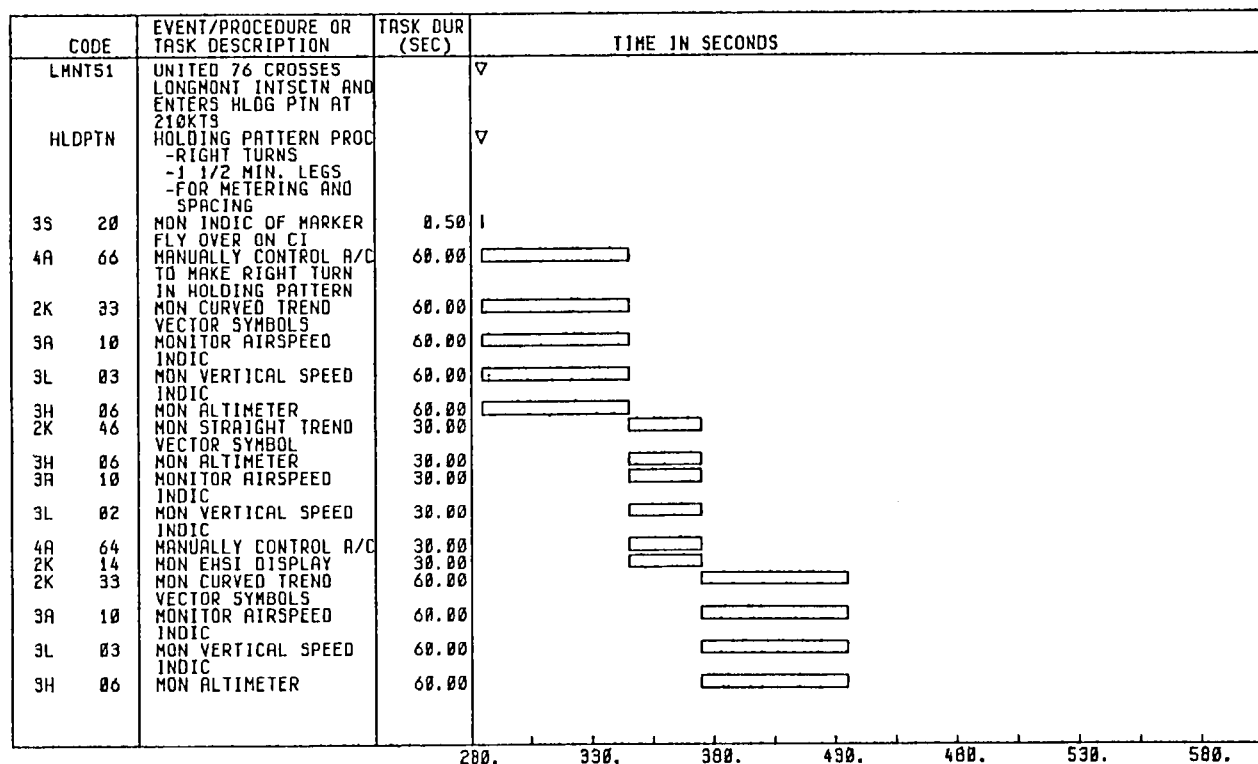
CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1PLMNT13	MSG- UNITED76 HOLD AT LONGMONT EXPECT FURTHER CLEARANCE AT 16 40 42	5.50	<input type="checkbox"/>
4A 64	MANUALLY CONTROL A/C	10.00	<input type="checkbox"/>
4B 09	ACTUATE THROTTLES TO ADJUST AIRSPEED	10.00	<input type="checkbox"/>
2J 42	MON EADI	10.00	<input type="checkbox"/>
3L 02	MON VERTICAL SPEED	10.00	<input type="checkbox"/>
3A 10	INDIC MONITOR AIRSPEED	10.00	<input type="checkbox"/>
MCA105	CONTROL AIRCRAFT - B (10 SEC PROC)		<input type="checkbox"/>
ISP105	FLIGHT INSTRUMENT SCAN - 0		<input type="checkbox"/>
4A 64	MANUALLY CONTROL A/C	10.00	<input type="checkbox"/>
4B 09	ACTUATE THROTTLES TO ADJUST AIRSPEED	10.00	<input type="checkbox"/>
2J 42	MON EADI	10.00	<input type="checkbox"/>
3L 02	MON VERTICAL SPEED	10.00	<input type="checkbox"/>
3A 10	INDIC MONITOR AIRSPEED	10.00	<input type="checkbox"/>
2K 14	MON EHSI DISPLAY	10.00	<input type="checkbox"/>









0. 50. 100. 150. 200. 250. 300.

UNSHIFTED

MISSION TIMELINE
 MISSION - DENVER LMNTMC APP/LN
 WITH HOLDING PTN -
 CONFIGURATION - AFD SIM DATA
 FLIGHT PHASE - HOLDING PATTERN FOR
 LONGMONT APP BETWEEN
 MEEKER AND LONGMNT
 CREWMEMBER - PILOT

OCT 19, 1978



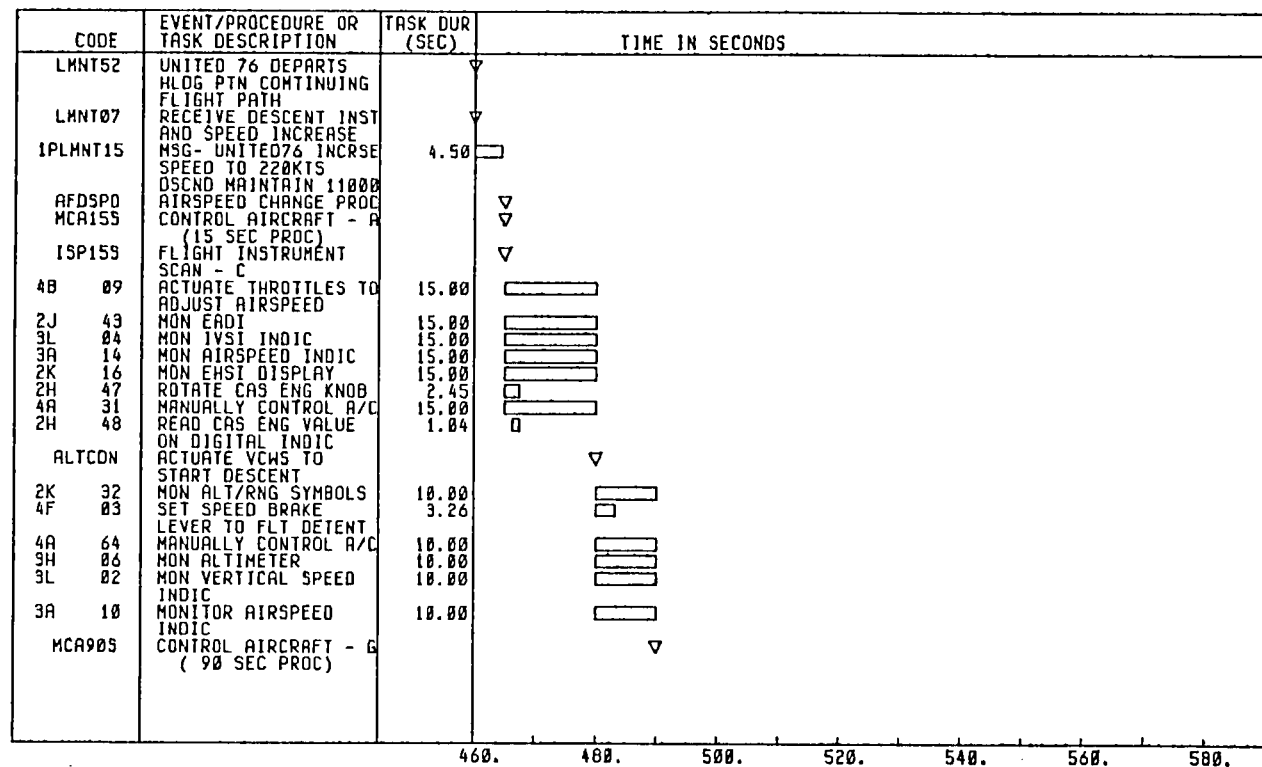
CODE		EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
4A	66	MANUALLY CONTROL A/C TO MAKE RIGHT TURN IN HOLDING PATTERN	60.00	
2K	15	MON EHSI DISPLAY	60.00	
2K	46	MON STRAIGHT TREND VECTOR SYMBOL	30.00	
3H	06	MON ALTITUDE	30.00	
3A	10	MONITOR AIRSPEED INDIC	30.00	
3L	02	MON VERTICAL SPEED INDIC	30.00	
4A	64	MANUALLY CONTROL A/C	30.00	
2K	14	MON EHSI DISPLAY	30.00	

280. 330. 380. 430. 480. 530. 580.

UNSHIFTED

MISSION TIMELINE
 MISSION - DENVER LMNTMC APP/LN
 WITH HOLDING PTN -
 CONFIGURATION - AFD SIM DATA
 FLIGHT PHASE - AIRCRAFT DEPARTS HLD
 DESCENDING TO 11000
 CREWMEMBER - PILOT

OCT 19, 1978



CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
ISP905	FLIGHT INSTRUMENT SCAN - G		▽
4A 65	MANUALLY CONTROL A/C	90.00	
4B 10	ACTUATE THROTTLES TO ADJUST AIRSPEED	90.00	
2J 43	MON EADI	90.00	
3L 03	MON VERTICAL SPEED	90.00	
3A 11	INDIC MONITOR AIRSPEED	90.00	
2K 15	INDIC MON EHSI DISPLAY	90.00	
MCA105	CONTROL AIRCRAFT - B (10 SEC PROC)		▽
ISP105	FLIGHT INSTRUMENT SCAN - B		▽
2J 42	MON EADI	10.00	
3L 02	MON VERTICAL SPEED	10.00	
3A 10	INDIC MONITOR AIRSPEED	10.00	
2K 14	INDIC MON EHSI DISPLAY	10.00	
4A 64	MANUALLY CONTROL A/C	10.00	
4B 09	ACTUATE THROTTLES TO ADJUST AIRSPEED	10.00	

460. 480. 500. 520. 540. 560. 580.

UNSHIFTED

MISSION TIMELINE
 MISSION - DENVER LHMTC APP/LN
 WITH HOLDING PTN -
 CONFIGURATION - AFD SIM DATA
 FLIGHT PHASE - AIRCRAFT DESCENDS
 TO 8000 AND SLOWS
 TO 170 KTS
 CREWMEMBER - PILOT

OCT 19, 1978

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
LMNT53	UNITED 76 CROSSES BRIGHTON INTSCTN < 11000. LEVELS OFF AND SLOWS TO 170		▽
LMNT08	RECEIVE SPEED REDUCT ION INSTRUCTIONS-170		▽
1PLMNT17	MSG- UNITED76 REDUCE SPEED TO 1 KTS	3.00	□
ALTCUP	ACTUATE VCWS TO END DESCENT		▽
3H 06	MON ALTIMETER	10.00	□
3L 02	MON VERTICAL SPEED	10.00	□
	INDIC		
3A 10	MONITOR AIRSPEED	10.00	□
	INDIC		
2K 32	MON ALT/RNG SYMBOLS	10.00	□
4F 01	SET SPD BRAKE LEVER TO DOWN	3.26	□
4A 64	MANUALLY CONTROL A/C	10.00	□
AFDSPD	AIRSPEED CHANGE PROC		▽
2H 47	ROTATE CAS ENG KNOB	2.45	□
2H 48	READ CAS ENG VALUE	1.04	□
	ON DIGITAL INDIC		
MCA30S	CONTROL AIRCRAFT - C (30 SEC PROC)		▽
ISP30S	FLIGHT INSTRUMENT SCAN - E		▽
3A 10	MONITOR AIRSPEED	30.00	□
	INDIC		
2K 14	MON EHSI DISPLAY	30.00	□
4A 64	MANUALLY CONTROL A/C	30.00	□
4B 10	ACTUATE THROTTLES TO ADJUST AIRSPEED	30.00	□
2J 42	MON EADI	30.00	□
3L 02	MON VERTICAL SPEED	30.00	□
	INDIC		
160011	SET FLAPS TO FLAPS 1		▽

580.

630.

680.

730.

780.

830.

880.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1P160058	CALL OUT -[FLAPS 1]	0.70	
1P 10	MON VERBAL REPORT	0.70	
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 30	MON ENG NO 2 EPR IND	0.44	
160017	SET FLAPS TO FLAPS 5		
160018	FLAP SET PROCEDURE		
MCA105	CONTROL AIRCRAFT - B (10 SEC PROC)		
ISP105	FLIGHT INSTRUMENT SCAN - B		
1P160061	CALL OUT -[FLAPS 5]	0.70	
4A 64	MANUALLY CONTROL A/C	10.00	
4B 09	ACTUATE THROTTLES TO ADJUST AIRSPEED	10.00	
2J 42	MON EADI	10.00	
3L 02	MON VERTICAL SPEED INDIC	10.00	
3A 10	MONITOR AIRSPEED INDIC	10.00	
2K 14	MON EHSI DISPLAY	10.00	
1P 10	MON VERBAL REPORT	0.70	
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 30	MON ENG NO 2 EPR IND	0.44	
ALTCDN	ACTUATE VCWS TO START DESCENT		
2K 32	MON ALT/RNG SYMBOLS	10.00	
4F 03	SET SPEED BRAKE LEVER TO FLT DETENT	3.26	
4A 64	MANUALLY CONTROL A/C	10.00	
3H 06	MON ALTIMETER	10.00	
3L 02	MON VERTICAL SPEED INDIC	10.00	
3A 10	MONITOR AIRSPEED INDIC	10.00	
LMNT54	UNITED 76 REACHES 170KTS AND RESUMES DESCENT TO 8000		
160025	SET FLAPS TO FLAPS 15		
160018	FLAP SET PROCEDURE		
MCA909	CONTROL AIRCRAFT - G (90 SEC PROC)		
ISP909	FLIGHT INSTRUMENT SCAN - G		
2K 15	MON EHSI DISPLAY	90.00	
1P160062	CALL OUT -[FLAPS 15]	0.70	
4A 65	MANUALLY CONTROL A/C	90.00	

580. 630. 680. 730. 780. 830. 880.

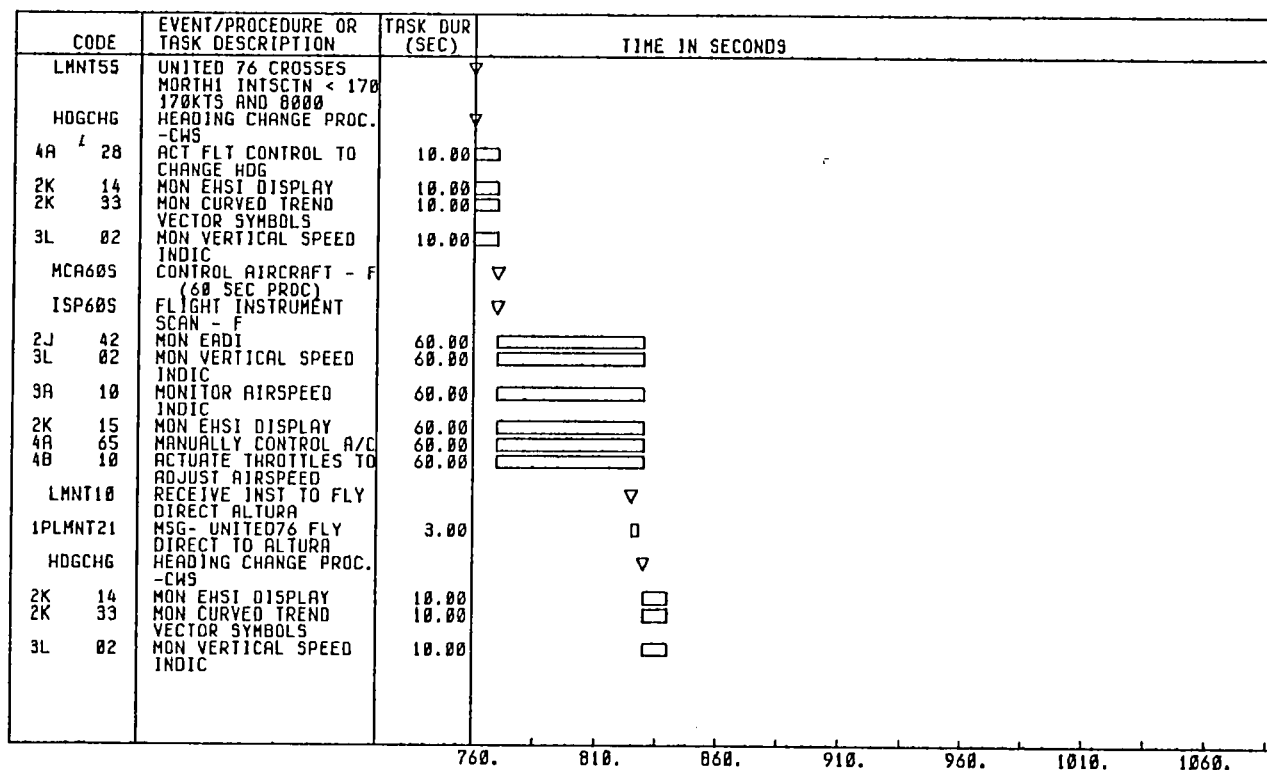
CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
4B 10	ACTUATE THROTTLES TO ADJUST AIRSPEED	90.00	
2J 43	MON EADI	90.00	
3L 03	MON VERTICAL SPEED	90.00	
3A 11	INDIC MONITOR AIRSPEED	90.00	
1P 10	MON VERBAL REPORT	0.70	I
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 30	MON ENG NO 2 EPR IND	0.44	I
LMNT09	CONTACT DENVER LCL CONTROL 118.3		▽
1PLMNT19	MSG- UNITED76 CONTACT DENVER LOCAL CONTROL ON 118.3	3.50	□
ALTCUP	ACTUATE VCWS TO END DESCENT		▽
4F 01	SET SPD BRAKE LEVER TO DOWN	3.26	□
4A 64	MANUALLY CONTROL A/C	10.00	□
9H 06	MON ALTIMETER	10.00	□
3L 02	MON VERTICAL SPEED	10.00	□
3A 10	INDIC MONITOR AIRSPEED	10.00	□
2K 32	MON ALT/RNG SYMBOLS	10.00	□
MCA105	CONTROL AIRCRAFT - B (10 SEC PROC)		▽
ISP105	FLIGHT INSTRUMENT SCAN - B		▽
4B 09	ACTUATE THROTTLES TO ADJUST AIRSPEED	10.00	□
2J 42	MON EADI	10.00	□
3L 02	MON VERTICAL SPEED	10.00	□
3A 10	INDIC MONITOR AIRSPEED	10.00	□
2K 14	MON EHSI DISPLAY	10.00	□
4A 64	MANUALLY CONTROL A/C	10.00	□









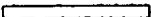


















500. 630. 680. 730. 780. 830. 880.

UNSHIFTED

MISSION TIMELINE
MISSION - DENVER LMNTMC APP/LN
WITH HOLDING PTN -
CONFIGURATION - AFD SIM DATA
FLIGHT PHASE - NORTH 1 METERING AND
SPACING AREA
CREWMEMBER - PILOT

OCT 19, 1978



CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
4A 28	ACT FLT CONTROL TO CHANGE HDG	10.00	
MCA60S	CONTROL AIRCRAFT - F (60 SEC PROC)		
ISP60S	FLIGHT INSTRUMENT SCAN - F		
4A 65	MANUALLY CONTROL A/C	60.00	
4B 10	ACTUATE THROTTLES TO ADJUST AIRSPEED	60.00	
2J 42	MON EADI	60.00	
3L 02	MON VERTICAL SPEED INDIC	60.00	
3A 10	MONITOR AIRSPEED INDIC	60.00	
2K 15	MON EHSI DISPLAY	60.00	
MCA10S	CONTROL AIRCRAFT - B (10 SEC PROC)		
ISP10S	FLIGHT INSTRUMENT SCAN - B		
2J 42	MON EADI	10.00	
3L 02	MON VERTICAL SPEED INDIC	10.00	
3A 10	MONITOR AIRSPEED INDIC	10.00	
2K 14	MON EHSI DISPLAY	10.00	
4A 64	MANUALLY CONTROL A/C	10.00	
4B 09	ACTUATE THROTTLES TO ADJUST AIRSPEED	10.00	
LMNT11	RECEIVE INST TO FLY DIRECT TO GATE		
1PLMNT23	MSG- UNITED76 FLY DIRECT TO APPROACH GATE	3.50	
HDGCH6	HEADING CHANGE PROC. -CWS		
3L 02	MON VERTICAL SPEED INDIC	10.00	
4A 28	ACT FLT CONTROL TO CHANGE HDG	10.00	
2K 14	MON EHSI DISPLAY	10.00	
2K 33	MON CURVED TREND VECTOR SYMBOLS	10.00	
AFDALT	ALTITUDE CHANGE PROC		
2H 33	ROTATE ALT ENG KNOB	2.47	
2H 34	READ ALT ENG VALUE ON DIGITAL INDIC	1.06	

760. 810. 860. 910. 960. 1010. 1060.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
ALTCDN	ACTUATE VCHS TO START DESCENT		▽
4A 64	MANUALLY CONTROL A/C	10.00	□
3H 06	MON ALTIMETER	10.00	□
3L 02	MON VERTICAL SPEED INDIC	10.00	□
3A 10	MONITOR AIRSPEED INDIC	10.00	□
2K 32	MON ALT/RNG SYMBOLS	10.00	□
4F 03	SET SPEED BRAKE LEVER TO FLT DETENT	3.26	□
MCA605	CONTROL AIRCRAFT - F (60 SEC PROC)		▽
ISP605	FLIGHT INSTRUMENT SCAN - F		▽
2J 42	MON EADI	60.00	▬
3L 02	MON VERTICAL SPEED INDIC	60.00	▬
3A 10	MONITOR AIRSPEED INDIC	60.00	▬
2K 15	MON EHSI DISPLAY	60.00	▬
4A 65	MANUALLY CONTROL A/C	60.00	▬
4B 10	ACTUATE THROTTLES TO ADJUST AIRSPEED	60.00	▬
140023	REPORT 1000 FT TO LEVEL OFF		▽
1P 11	MON VERBAL REPORT	1.70	□
ALTCUP	ACTUATE VCHS TO END DESCENT		▽
2K 32	MON ALT/RNG SYMBOLS	10.00	□
4F 01	SET SPD BRAKE LEVER TO DOWN	3.26	□
4A 64	MANUALLY CONTROL A/C	10.00	□
3H 06	MON ALTIMETER	10.00	□
3L 02	MON VERTICAL SPEED INDIC	10.00	□
3A 10	MONITOR AIRSPEED INDIC	10.00	□

760. 810. 860. 910. 960. 1010. 1060.

UNSHIFTED

MISSION TIMELINE
 MISSION - DENVER LMNTMC APP/LN
 WITH HOLDING PTN -
 CONFIGURATION - AFD SIM DATA
 FLIGHT PHASE - FINAL APP TO LANDING
 FOR LONGHONT
 CREWMEMBER - PILOT

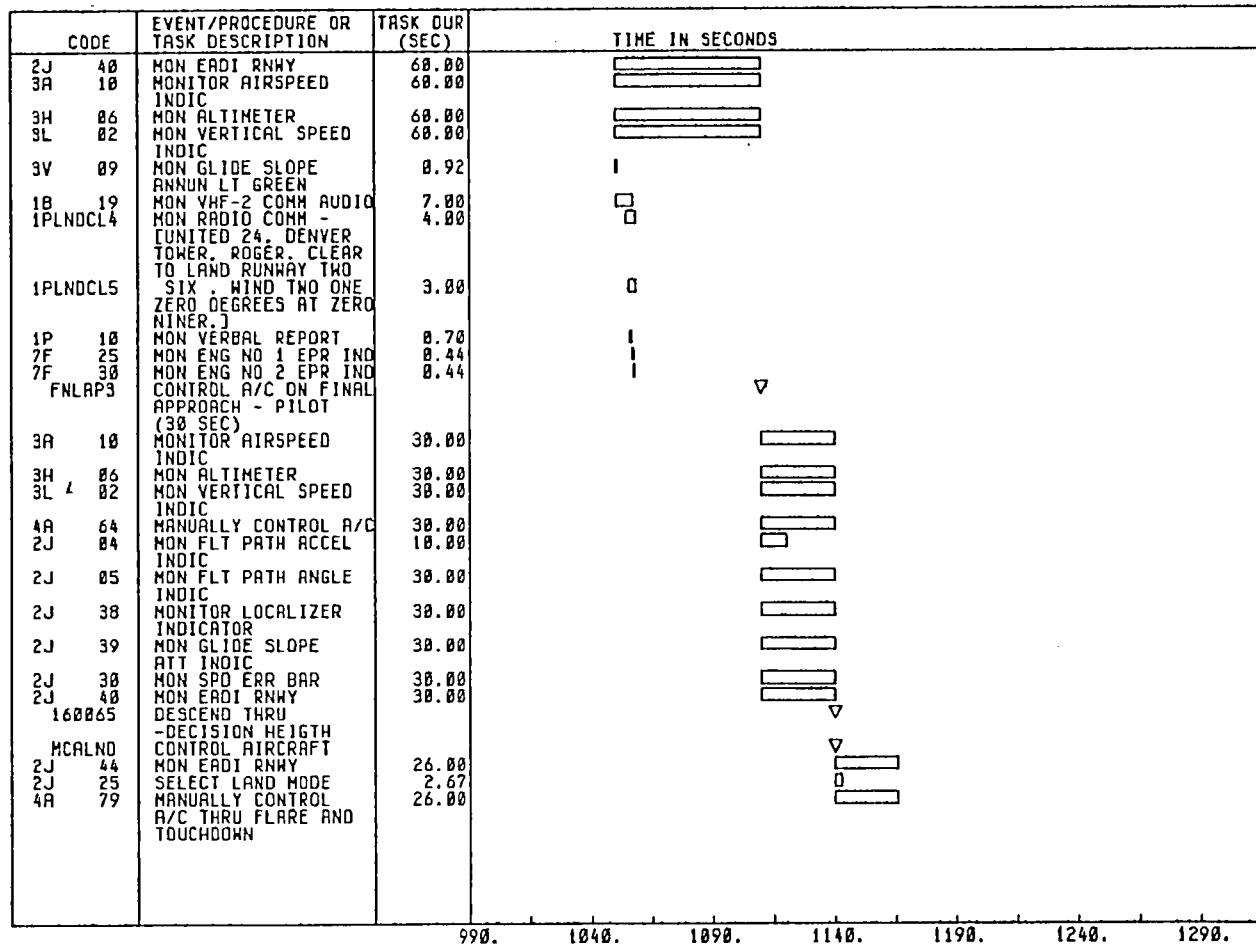
OCT 19, 1978





CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
LMNT56	U 76 CROSSES GATE		▽
	SETS FLAPS TO 25		
	SLOWS TO APRCH SPD		
LMNT12	RECEIVE INST TO SLOW		▽
	TO APRCH SPEED AND		
	CALL TOWER AT 0.M.		
1PLMNT25	MSG - UNITED 76 REDUCE	5.50	□
	TO APPROACH SPEED		
	CONTACT THR AT 0.M.		
	ON 120.0		
AFD5P0	AIRSPD CHANGE PROC		▽
MCA305	CONTROL AIRCRAFT - C		▽
	(30 SEC PROC)		
ISP305	FLIGHT INSTRUMENT		▽
	SCAN - E		
4B 10	ACTUATE THROTTLES TO	30.00	▬
	ADJUST AIRSPD		
2J 42	MON EADI	30.00	▬
3L 02	MON VERTICAL SPEED	30.00	▬
	INDIC		
3A 10	MONITOR AIRSPD	30.00	▬
	INDIC		
2K 14	MON EHSI DISPLAY	30.00	▬
2H 47	ROTATE CAS ENG KNOB	2.45	D
4A 64	MANUALLY CONTROL A/C	30.00	▬
2H 48	READ CAS ENG VALUE	1.04	I
	ON DIGITAL INDIC		
160053	SET FLAPS TO FLAPS		▽
	25		
160010	FLAP SET PROCEDURE		▽
1P160070	CALL OUT - (FLAPS 25)	0.70	I
1P 10	MON VERBAL REPORT	0.70	I
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 30	MON ENG NO 2 EPR IND	0.44	I
MCA105	CONTROL AIRCRAFT - B		▽
	(10 SEC PROC)		

990. 1040. 1090. 1140. 1190. 1240. 1290.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
ISP105	FLIGHT INSTRUMENT SCAN - B		▽
4B 09	ACTUATE THROTTLES TO ADJUST AIRSPEED	10.00	□
2J 42	MON EADI	10.00	□
3L 02	MON VERTICAL SPEED	10.00	□
3A 10	INDIC MONITOR AIRSPEED	10.00	□
2K 14	INDIC MON EHSI DISPLAY	10.00	□
4A 64	MANUALLY CONTROL A/C	10.00	□
LMNT57	UNITED 76 CROSSES O.M. SETS FLAPS 40		▽
LNCLR	CONTACT TOWER FOR FINAL LANDING CLEAR- ANCE		▽
MCA105	CONTROL AIRCRAFT - B (10 SEC PROC)		▽
ISP105	FLIGHT INSTRUMENT SCAN - B		▽
3L 02	MON VERTICAL SPEED	10.00	□
3A 10	INDIC MONITOR AIRSPEED	10.00	□
2K 14	INDIC MON EHSI DISPLAY	10.00	□
4A 64	MANUALLY CONTROL A/C	10.00	□
4B 09	ACTUATE THROTTLES TO ADJUST AIRSPEED	10.00	□
2J 42	MON EADI	10.00	□
180031	ACQUIRE GLIDE SLOPE		▽
160057	SET FLAPS TO FLAPS 40		▽
160018	FLAP SET PROCEDURE		▽
FNLAP6	CONTROL A/C ON FINAL APPROACH - PILOT (60 SEC)		▽
1P160073	CALL OUT - [FLAPS 40]	0.70	I
4A 65	MANUALLY CONTROL A/C	60.00	▬
2J 04	MON FLT PATH ACCEL	60.00	▬
2J 09	INDIC MON FLT PATH ANGLE	60.00	▬
2J 38	INDIC MONITOR LOCALIZER INDICATOR	60.00	▬
2J 39	MON GLIDE SLOPE	60.00	▬
2J 30	ATT INDIC MON SPD ERR BAR	60.00	▬

990. 1040. 1090. 1140. 1190. 1240. 1290.



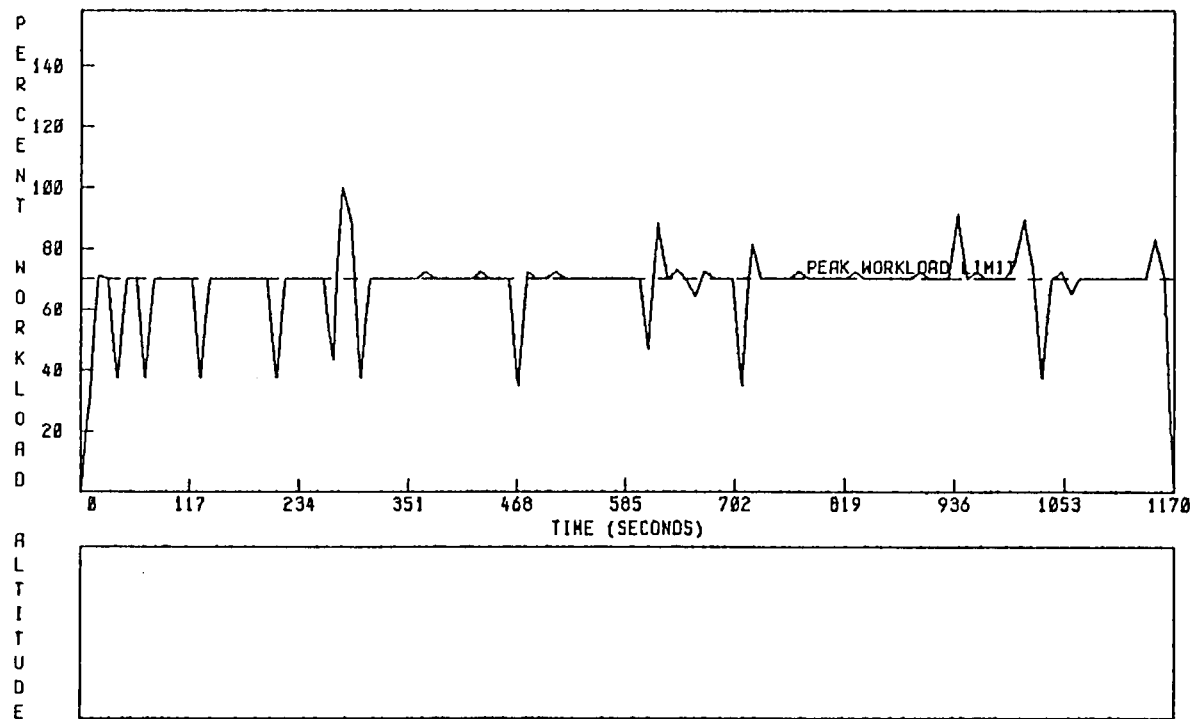
CODE		EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
2J	09	MON FLT PATH ANGLE INDIC	26.00	
1P	11	MON VERBAL REPORT	0.80	
2J	24	MON 100 FT INDIC ON EADI	2.27	
2J	41	MON EADI DRIFT INDIC	10.00	
4B	08	SET THRUST LEVERS TO IDLE	2.50	

990. 1040. 1090. 1140. 1190. 1240. 1290.

UNSHIFTED
OCT 19, 1978

WORKLOAD HISTOGRAM
CREWMEMBER- COPILOT
CHANNEL- TOTAL VISION
CONFIGURATION- AFD SIM DATA

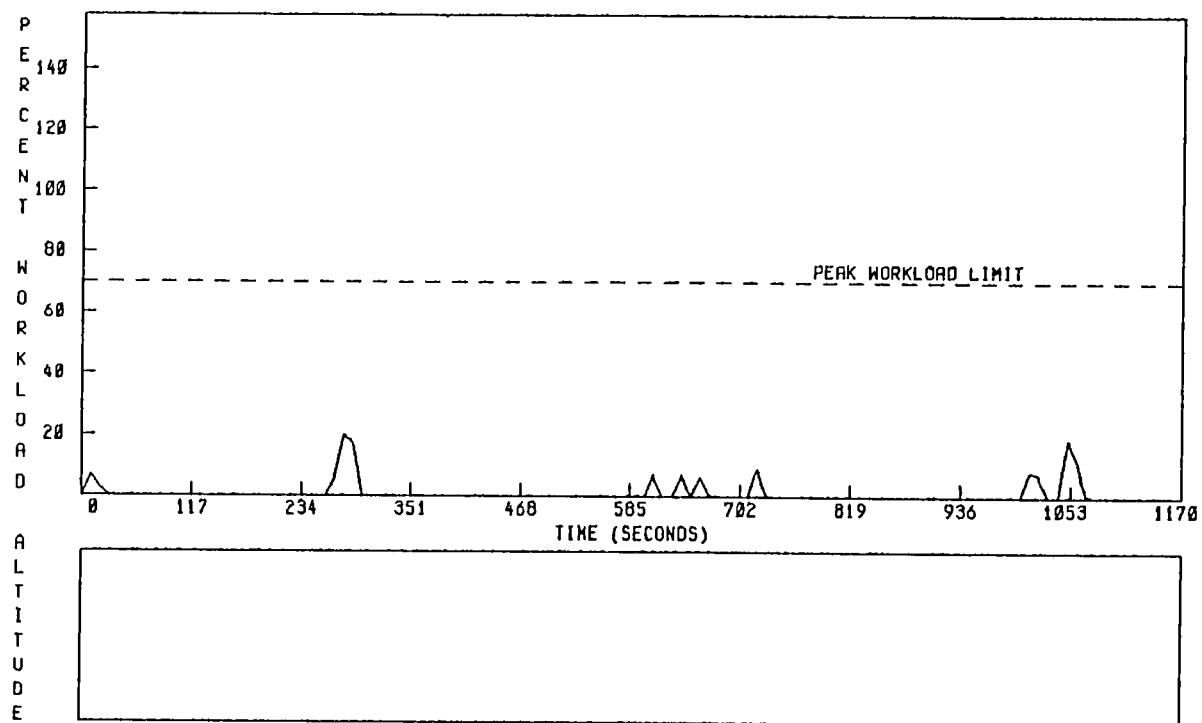
MISSION
DENVER LMNTHC APP/LN
WITH HOLDING PTN -



UNSHIFTED
OCT 19, 1978

WORKLOAD HISTOGRAM
CREWMEMBER- COPILOT
CHANNEL- TOTAL MOTOR
CONFIGURATION- AFD SIM DATA

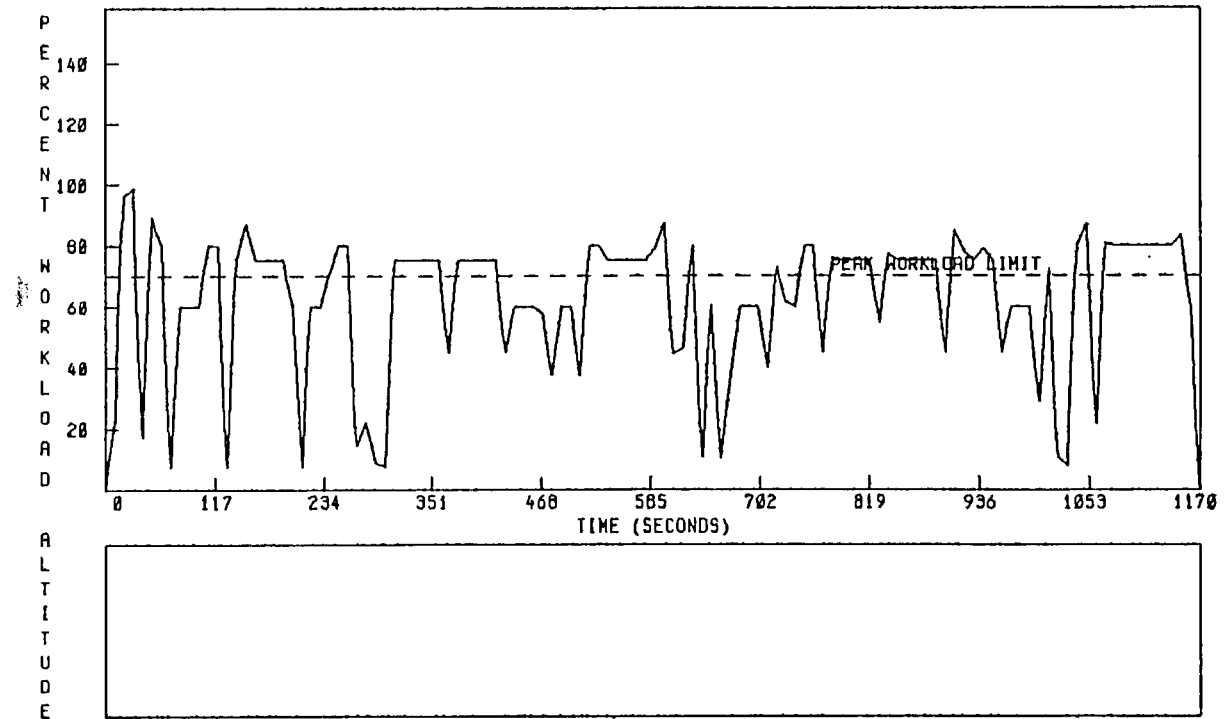
MISSION
DENVER LAMTHC APP/LN
WITH HOLDING PTN -



UNSHIFTED
OCT 19, 1978

WORKLOAD HISTOGRAM
CREWMEMBER- COPILOT
CHANNEL- COGNITION
CONFIGURATION- AFD SIM DATA

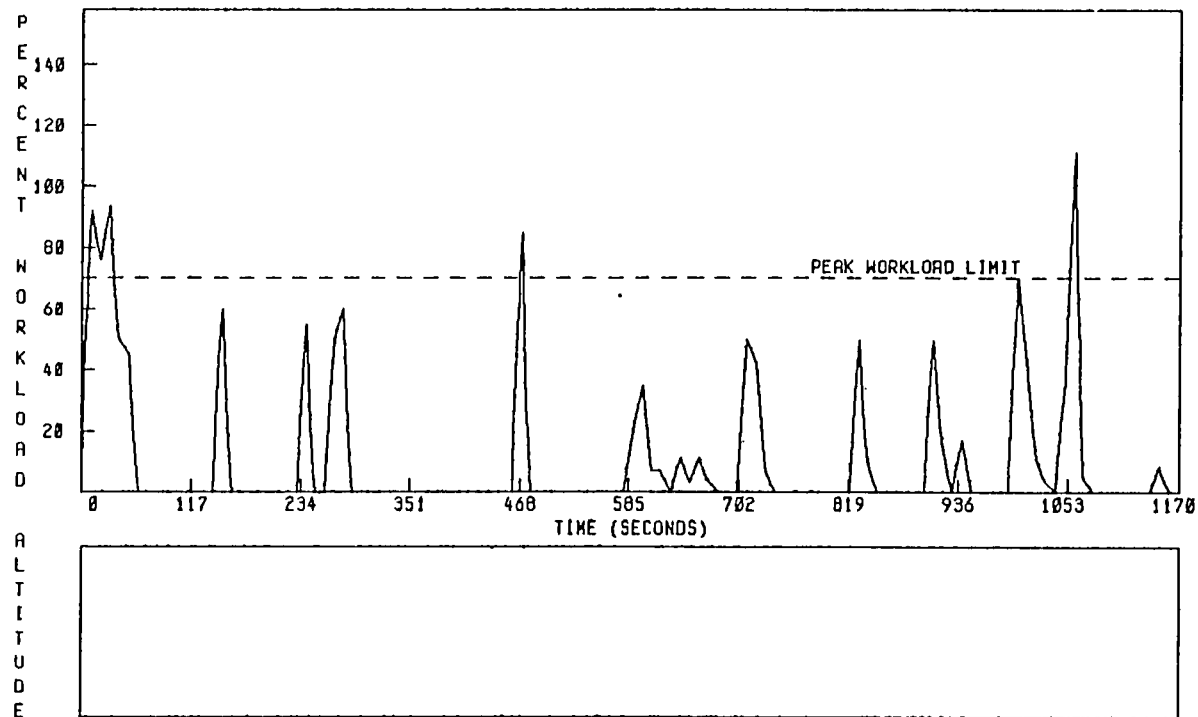
MISSION
DENVER LMNTMC APP/LN
WITH HOLDING PTN -



UNSHIFTED
OCT 19, 1978

WORKLOAD HISTOGRAM
CREWMEMBER- COPILOT
CHANNEL- TOTAL COMMUNICATION
CONFIGURATION- AFD SIM DATA

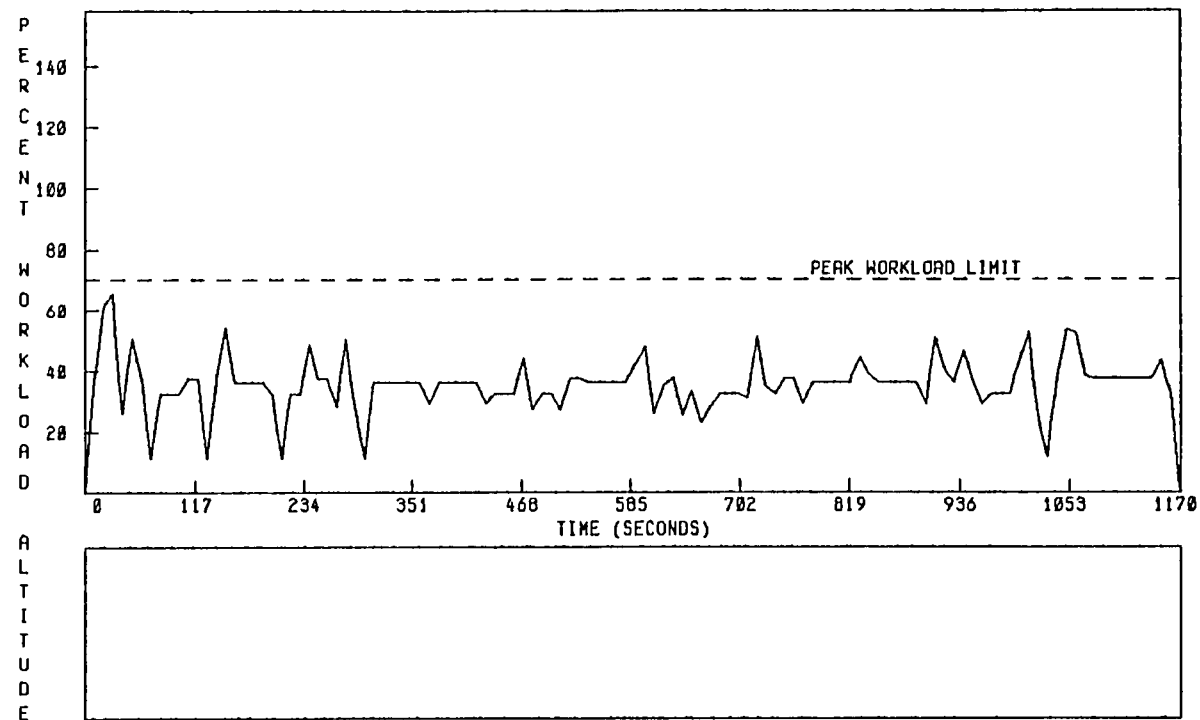
MISSION
DENVER LMNTMC APP/LN
WITH HOLDING PTTN -



UNSHIFTED
OCT 19, 1978

WORKLOAD HISTOGRAM
CREWMEMBER- COPILOT
CHANNEL- WEIGHTED CHANNEL AVERAGE
CONFIGURATION- AFD SIM DATA

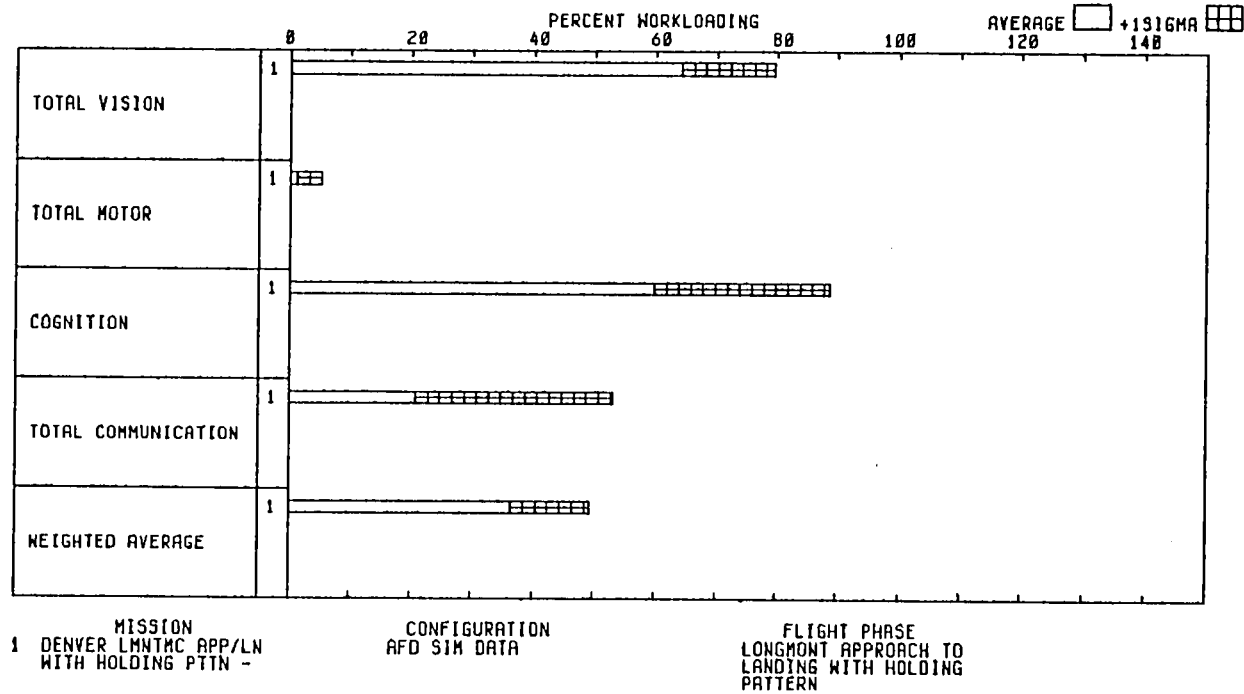
MISSION
DENVER LANTMC APP/LN
WITH HOLDING PTN -



UNSHIFTED

WORKLOAD SUMMARY
CREWMEMBER - COPILOT

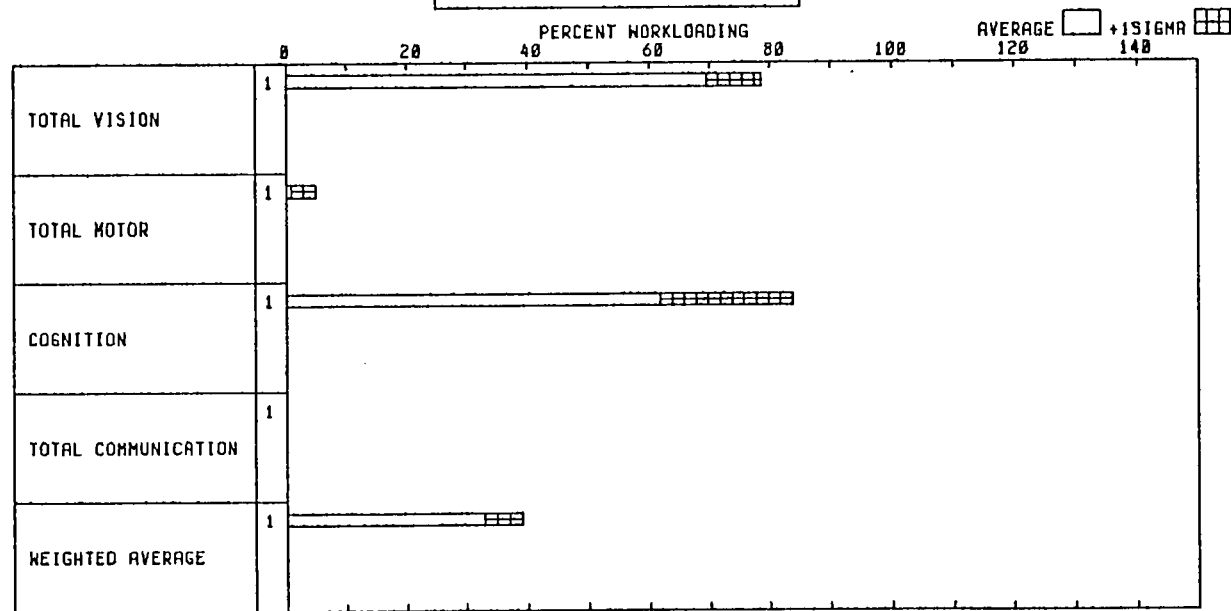
OCT 19, 1978



UNSHIFTED

WORKLOAD SUMMARY CREWMEMBER - COPILOT

OCT 19, 1978



MISSION
1 DENVER LMNTMC APP/LN
WITH HOLDING PTTN -

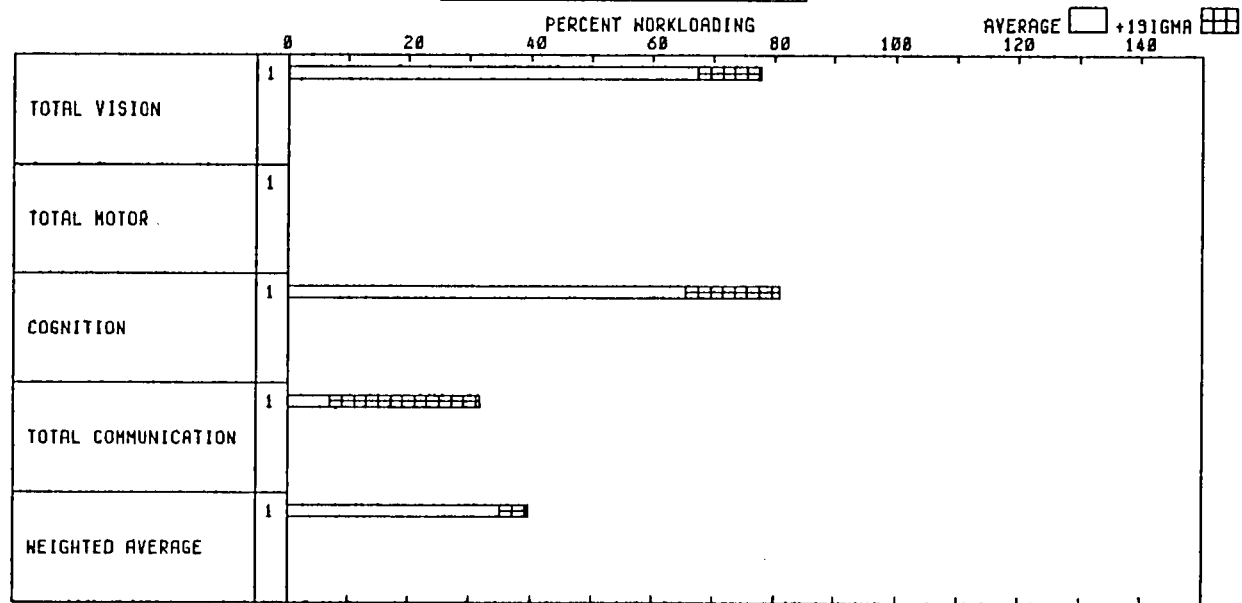
CONFIGURATION
AFD SIM DATA

FLIGHT PHASE
HOLDING PATTERN FOR
LONGMONT APP BETWEEN
REEKER AND LONGMNT

UNSHIFTED

WORKLOAD SUMMARY
CREWMEMBER - COPILOT

OCT 19, 1978

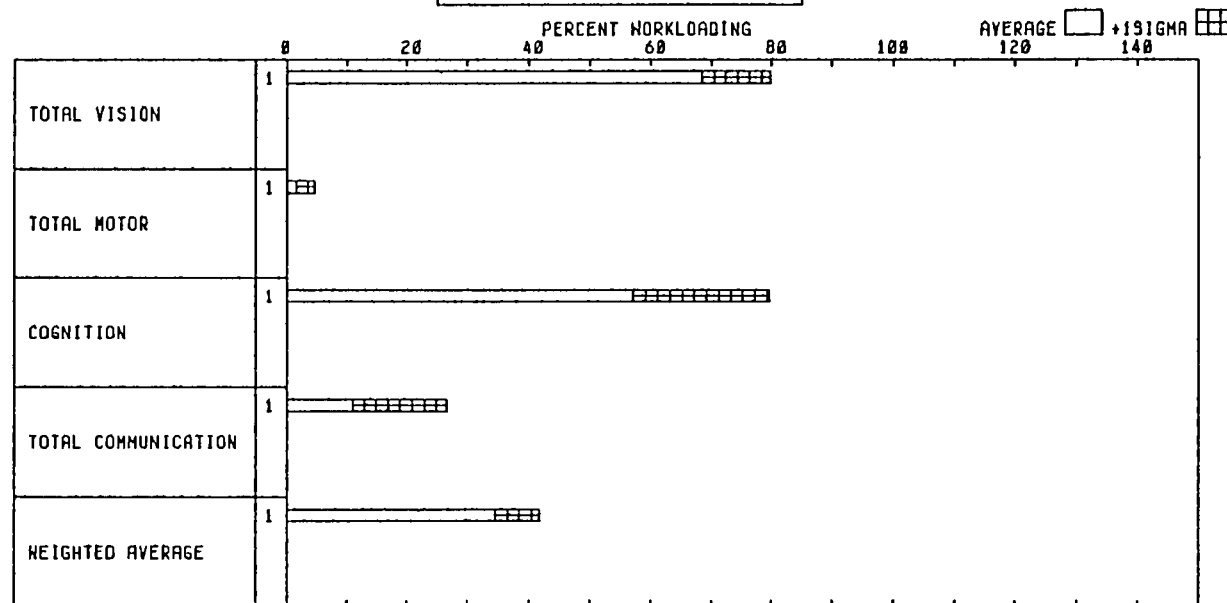


MISSION
1 DENVER LMNTAC APP/LN
WITH HOLDING PTIN -

CONFIGURATION
AFD SIM DATA

FLIGHT PHASE
AIRCRAFT DEPARTS HLD
DESCENDING TO 11000

OCT 19, 1978



MISSION
1 DENVER LMNTMC APP/LN
WITH HOLDING PTTN -

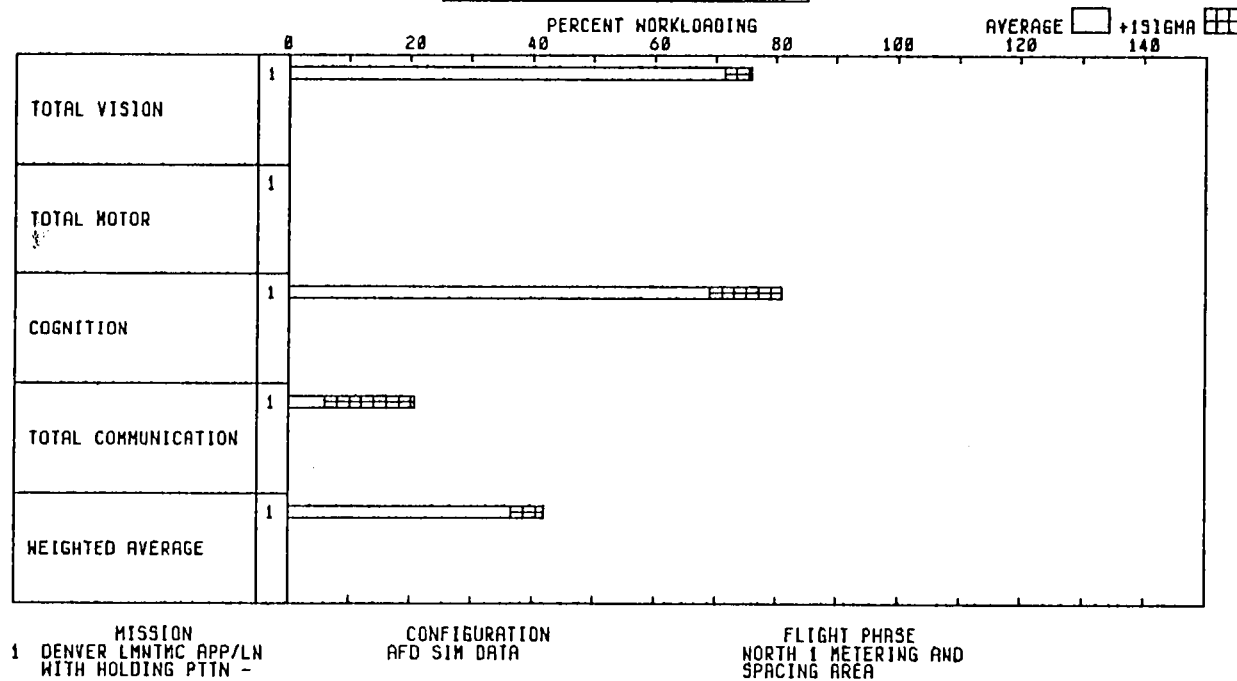
CONFIGURATION
AFD SIM DATA

FLIGHT PHASE
AIRCRAFT DESCENDS
TO 8000 AND SLOWS
TO 170 KTS

UNSHIFTED

WORKLOAD SUMMARY
CREWMEMBER - COPILOT

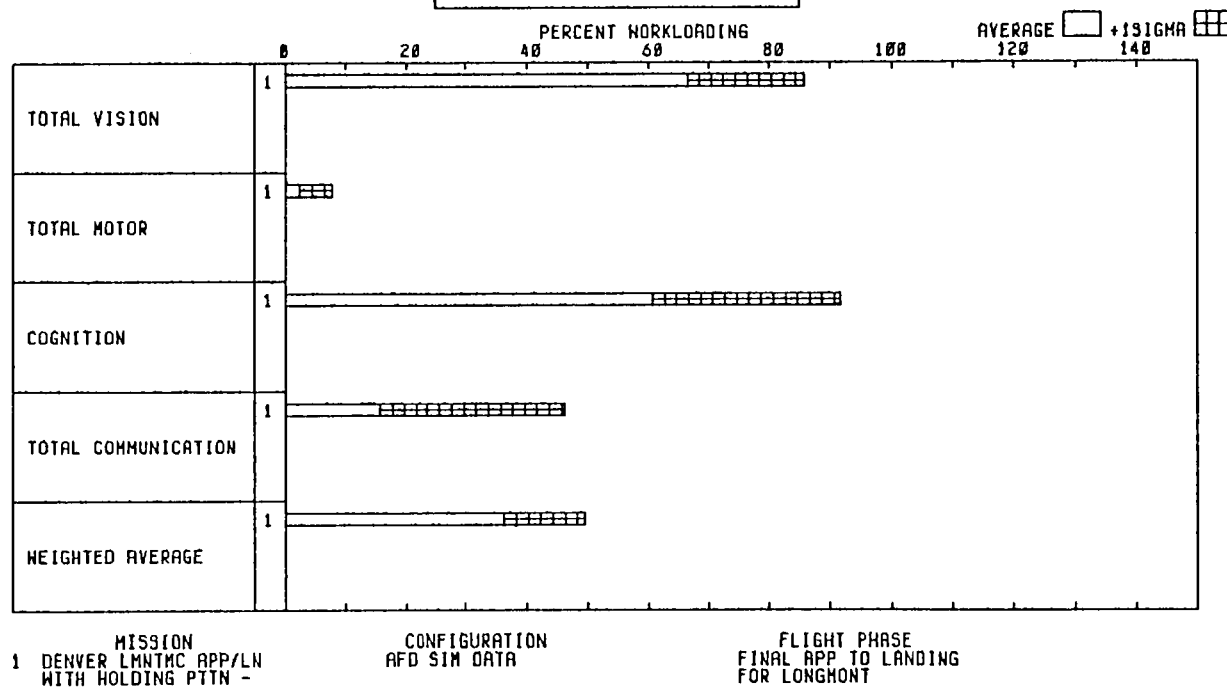
OCT 19, 1978



UNSHIFTED

WORKLOAD SUMMARY CREWMEMBER - COPILOT

OCT 19, 1978



UNSHIFTED

MISSION TIMELINE
 MISSION - DENVER LMNTMC APP/LN
 WITH HOLDING PTN -
 CONFIGURATION - AFD SIM DATA
 FLIGHT PHASE - LONGMONT APPROACH TO
 LANDING WITH HOLDING
 PATTERN
 CREWMEMBER - COPILOT

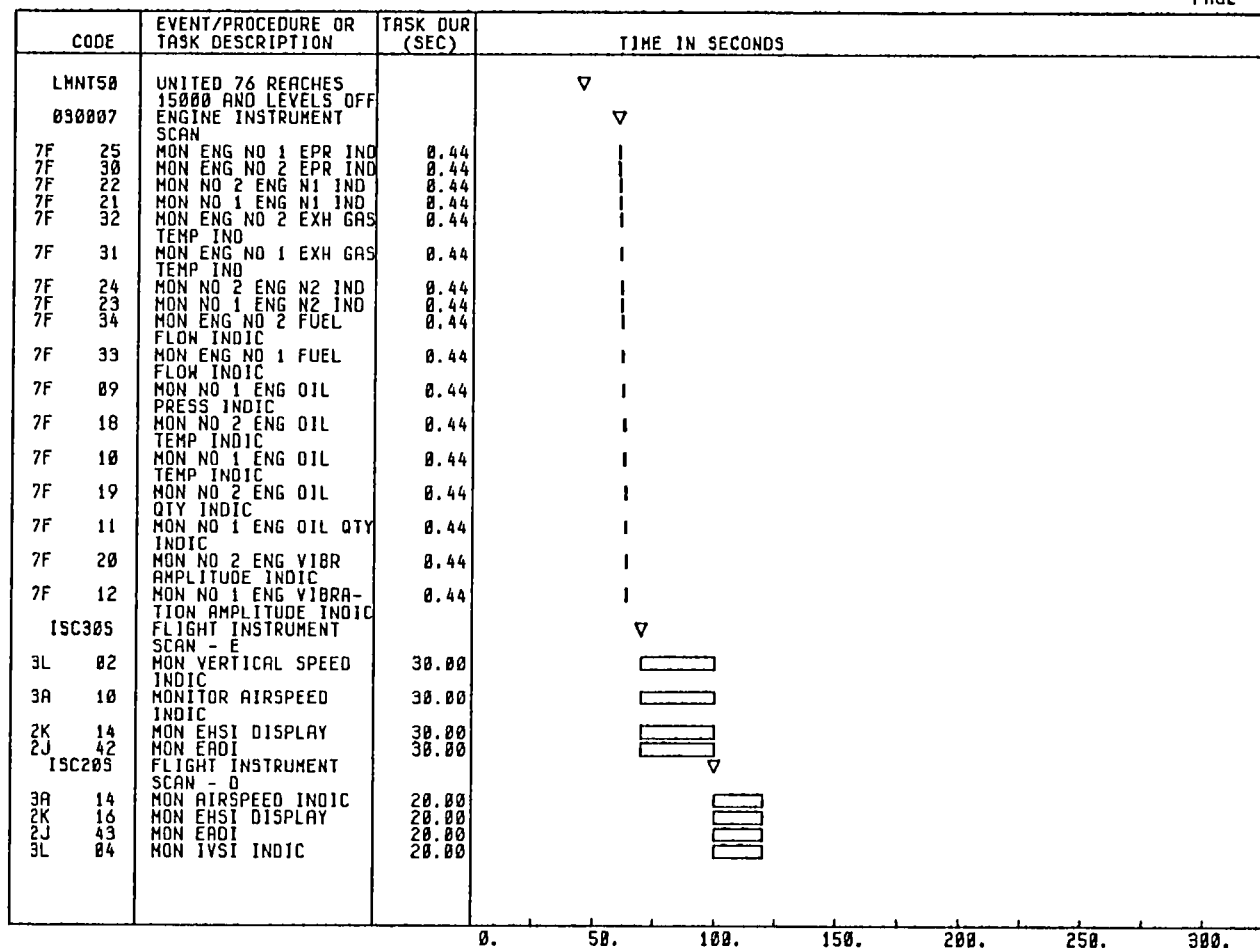
OCT 19, 1978

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
LMNT01 140023	START OF FLIGHT COM REPORT 1000 FT TO LEVEL OFF		▽
1PLMNT01	MSG- UNITED 76, CON- TACT DENVER APRCH CNTRL ON 128.05	4.50	□
3H 02	MON CORR BARO ALT INDIC	2.13	□
1P140045	CALL OUT - [1000 FEET TO LEVEL OFF]	1.70	□
1PLMNT02	COM- UNITED 76, ROGER - DENVER APRCH 128.05	3.00	□
1R 07	MON VHF-2R FREQ IND	0.77	□
1R 08	SET VHF-2R FREQ- WHOLE NO. 5	2.03	□
1R 09	SET VHF-2R FREQ- FRACTIONS	1.50	□
ISC205	FLIGHT INSTRUMENT SCAN - 0		▽
3A 14	MON AIRSPEED INDIC	20.00	□
2K 16	MON EHST DISPLAY	20.00	□
2J 43	MON EADI	20.00	□
3L 04	MON IVSI INDIC	20.00	□
1PLMNT03	COM- DENVER APRCH UNITED 76	3.00	□
1PLMNT04	MSG- UNITED 76, DENVER PROCEED TO LONGMONT DESCEND MAINTAIN 16000	5.00	□
1PLMNT05	COM- UNITED 76 ROGER OUT OF 17-5 FOR 16000	3.00	□
LMNT02	DESCENT INSTRUCTIONS TO 15000		▽
1PLMNT06	MSG- UNITED 76 OSCND MAINTAIN 15000	3.00	□

0. 50. 100. 150. 200. 250. 300.












CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1PLMNT07	COM- UNITED76 ROGER DESCEND TO 15000	3.00	□
030007	ENGINE INSTRUMENT SCAN		▽
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 10	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
7F 12	MON NO 1 ENG VIBRA- TION AMPLITUDE INDIC	0.44	
LMNT03	RECEIVE HOLDING PTN INSTRUCTIONS		▽
1PLMNT08	MSG- UNITED76 HOLD AT LONGMONT, EXPECT FURTHER CLEARANCE AT 16 40	5.00	□
19C205	FLIGHT INSTRUMENT SCAN - 0		▽
2J 43	MON EADI	20.00	▬
3L 04	MON IVSI INDIC	20.00	▬
3A 14	MON AIRSPEED INDIC	20.00	▬
2K 16	MON EADI DISPLAY	20.00	▬
1PLMNT09	COM- UNITED76 ROGER HOLD LONGMONT FURTHER CLEARANCE 16 40	4.50	□

0. 50. 100. 150. 200. 250. 300.



CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
030007	ENGINE INSTRUMENT SCAN		▽
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 12	MON NO 1 ENG VIBRA- TION AMPLITUDE INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
ISC605	FLIGHT INSTRUMENT SCAN - F		▽
2J 42	MON EADI	60.00	=====
3L 02	MON VERTICAL SPEED INDIC	60.00	=====
3A 10	MONITOR AIRSPEED INDIC	60.00	=====
2K 15	MON EHSI DISPLAY	60.00	=====
LMNT04	DESCENT INSTRUCTIONS TO 14000		▽
1PLMNT10	MSG- UNITED76 OSCND MAINTAIN 14000	3.00	□
1PLMNT11	COM- UNITED76 ROGER CLEARED TO 14000	3.00	□
ISC105	FLIGHT INSTRUMENT SCAN - B		▽

0. 50. 100. 150. 200. 250. 300.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
3A 10	MONITOR AIRSPEED INDIC	10.00	
2K 14	MON EHSI DISPLAY	10.00	
2J 42	MON EADI	10.00	
3L 02	MON VERTICAL SPEED INDIC	10.00	
030007	ENGINE INSTRUMENT SCAN		
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 10	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 12	MON NO 1 ENG VIBRA- TION AMPLITUDE INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
13C305	FLIGHT INSTRUMENT SCAN - E		
2J 42	MON EADI	30.00	
3L 02	MON VERTICAL SPEED INDIC	30.00	
3A 10	MONITOR AIRSPEED INDIC	30.00	
2K 14	MON EHSI DISPLAY	30.00	
LHNT05	RECEIVE SPEED REDUCT ION TO 250 INST		

0. 50. 100. 150. 200. 250. 300.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1PLMNT12	MSG- UNITED76 REDUCE SPEED TO 250KTS	3.00	
1PBYRZ10	RADIO- UNITED 24, ROGER, SLOW TO 250	2.50	
ISC205	FLIGHT INSTRUMENT SCAN - 0		
3A 14	MON AIRSPEED INDIC	20.00	
2K 16	MON EHSI DISPLAY	20.00	
2J 43	MON EADI	20.00	
3L 04	MON IVSI INDIC	20.00	
LMNT06	RECEIVE HOLDING PTN INSTRUCTIONS		
LMHLD6	COPLOT SETS UP HLDG PATTERN FOR LONGMONT INTERSECTION		
2L 67	PRESS SEL KEY	2.03	
1PLMNT13	MSG- UNITED76 HOLD AT LONGMONT EXPECT FURTHER CLEARANCE AT 16 40 42	5.50	
2L 19	MON LINE B MESSAGE	2.06	
2L 26	PRESS NO.1 KEY	1.35	
1PLMNT14	COM- UNITED76 ROGER, HOLD LONGMONT EXPECT FURTHER CLEARANCE AT 16 40 42	5.50	
2L 19	MON LINE B MESSAGE	2.06	
2L 40	PRESS L KEY	1.35	
2L 51	PRESS O/SID KEY	1.35	
2L 50	PRESS N KEY	1.35	
2L 43	PRESS G/ALT KEY	1.35	
2L 49	PRESS M/GS KEY	1.35	
2L 51	PRESS O/SID KEY	1.35	
2L 50	PRESS N KEY	1.35	
2L 56	PRESS T/PTA KEY	1.35	
2L 19	MON LINE B MESSAGE	2.06	
2L 23	PRESS CLR KEY	1.35	
2L 21	PRESS EXEC KEY	1.46	









UNSHIFTED

MISSION TIMELINE
 MISSION - DENVER LMNTMC APP/LN
 WITH HOLDING PTN -
 CONFIGURATION - AFD SIM DATA
 FLIGHT PHASE - HOLDING PATTERN FOR
 LONGMONT APP BETWEEN
 MEEKER AND LONGMNT
 CREWMEMBER - COPILOT

OCT 19, 1978

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
LMNT51	UNITED 76 CROSSES LONGMONT INTSCTN AND ENTERS HLDG PTN AT 210KTS		▽
030007	ENGINE INSTRUMENT SCAN		▽
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 12	MON NO 1 ENG VIBRA- TION AMPLITUDE INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
15C605	FLIGHT INSTRUMENT SCAN - F		▽

280. 330. 380. 430. 480. 530. 580.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
9A 10	MONITOR AIRSPEED INDIC	60.00	
2K 15	MON EHSI DISPLAY	60.00	
2J 42	MON EADI	60.00	
3L 02	MON VERTICAL SPEED INDIC	60.00	
030007	ENGINE INSTRUMENT SCAN		▽
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
7F 20	MON NO 2 ENG VIBRATION AMPLITUDE INDIC	0.44	
ISC60S	FLIGHT INSTRUMENT SCAN - F		▽
2J 42	MON EADI	60.00	
3L 02	MON VERTICAL SPEED INDIC	60.00	
9A 10	MONITOR AIRSPEED INDIC	60.00	
2K 15	MON EHSI DISPLAY	60.00	
030007	ENGINE INSTRUMENT SCAN		▽
7F 30	MON ENG NO 2 EPR IND	0.44	

200. 330. 380. 430. 480. 530. 580.

CODE		EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F	25	MON ENG NO 1 EPR IND	0.44	
7F	21	MON NO 1 ENG N1 IND	0.44	
7F	22	MON NO 2 ENG N1 IND	0.44	
7F	31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F	32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F	23	MON NO 1 ENG N2 IND	0.44	
7F	24	MON NO 2 ENG N2 IND	0.44	
7F	33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F	34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F	09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F	10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F	18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F	11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F	19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F	12	MON NO 1 ENG VIBRA- TION AMPLITUDE INDIC	0.44	
7F	20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
ISC05		FLIGHT INSTRUMENT SCAN - E		▽
3A	10	MONITOR AIRSPEED INDIC	30.00	▬
2K	14	MON EHSI DISPLAY	30.00	▬
2J	42	MON EADI	30.00	▬
3L	02	MON VERTICAL SPEED INDIC	30.00	▬
ISC055		FLIGHT INSTRUMENT SCAN - A		▽
2K	14	MON EHSI DISPLAY	5.00	□
2J	42	MON EADI	5.00	□
3L	02	MON VERTICAL SPEED INDIC	5.00	□
3A	10	MONITOR AIRSPEED INDIC	5.00	□

200. 300. 380. 430. 480. 530. 580.

UNSHIFTED

MISSION TIMELINE
 MISSION - DENVER LMNTMC APP/LN
 WITH HOLDING PTN -
 CONFIGURATION - AFD SIM DATA
 FLIGHT PHASE - AIRCRAFT DEPARTS HLD
 DESCENDING TO 11000
 CREWMEMBER - COPILOT

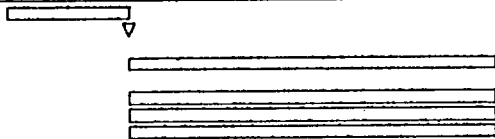
OCT 19, 1978

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
LMNT52	UNITED 76 DEPARTS HLOG PTN CONTINUING FLIGHT PATH		
LMNT07	RECEIVE DESCENT INST AND SPEED INCREASE		
1PLMNT15	MSG- UNITED76 INCRSE SPEED TO 220KTS	4.50	
1PLMNT16	OSCND MAINTAIN 11000 COM- UNITED76 ROGER DESCEND MAINTAIN 11000 SPEED 220	4.00	
030007	ENGINE INSTRUMENT SCAN		
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	

460. 480. 500. 520. 540. 560. 580.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	I
7F 12	MON NO 1 ENG VIBRA- TION AMPLITUDE INDIC	0.44	I
ISC305	FLIGHT INSTRUMENT SCAN - E		▽
2K 14	MON EHSI DISPLAY	30.00	=====
2J 42	MON EADI	30.00	=====
9L 02	MON VERTICAL SPEED INDIC	30.00	=====
3A 10	MONITOR AIRSPEED INDIC	30.00	=====
030007	ENGINE INSTRUMENT SCAN		▽
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 30	MON ENG NO 2 EPR IND	0.44	I
7F 22	MON NO 2 ENG N1 IND	0.44	I
7F 21	MON NO 1 ENG N1 IND	0.44	I
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	I
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	I
7F 24	MON NO 2 ENG N2 IND	0.44	I
7F 23	MON NO 1 ENG N2 IND	0.44	I
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	I
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	I
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	I
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	I
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	I
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	I
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	I
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	I
7F 12	MON NO 1 ENG VIBRA- TION AMPLITUDE INDIC	0.44	I
ISC205	FLIGHT INSTRUMENT SCAN - O		▽
3L 04	MON 1VST INDIC	20.00	=====
3A 14	MON AIRSPEED INDIC	20.00	=====
2K 16	MON EHSI DISPLAY	20.00	=====

460. 480. 500. 520. 540. 560. 580.

CODE		EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
2J	43	MON EADI	20.00	
ISC605		FLIGHT INSTRUMENT SCAN - F		
9A	10	MONITOR AIRSPEED INDIC	60.00	
2K	15	MON EHSI DISPLAY	60.00	
2J	42	MON EADI	60.00	
3L	02	MON VERTICAL SPEED INDIC	60.00	

460. 480. 500. 520. 540. 560. 580.

UNSHIFTED

MISSION TIMELINE
MISSION - DENVER LMNTMC APP/LN
WITH HOLDING PTN -
CONFIGURATION - AFD SIM DATA
FLIGHT PHASE - AIRCRAFT DESCENDS
TO 8000 AND SLOWS
TO 170 KTS
CREWMEMBER - COPILOT

OCT 19, 1978

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
LMNT53	UNITED 76 CROSSES BRIGHTON INTSCIN < 11000. LEVELS OFF AND SLOWS TO 170		▽
LMNT08	RECEIVE SPEED REDUCTION INSTRUCTIONS-170		▽
1PLMNT17	MSG- UNITED76 REDUCE SPEED TO 1 KTS	3.00	□
1SC155	FLIGHT INSTRUMENT SCAN - C		▽
3A 14	MON AIRSPEED INDIC	15.00	□
2K 16	MON EHSI DISPLAY	15.00	□
2J 43	MON EADI	15.00	□
3L 04	MON IVSI INDIC	15.00	□
1PLMNT18	COM- UNITED76 ROGER SLOW TO 170	2.50	□
160011	SET FLAPS TO FLAPS 1		▽
1P 10	MON VERBAL REPORT	0.70	↓
4E 07	SET FLAP CONT LEVER TO FLAPS 1	2.69	□
4E 15	MONITOR FLAP POSITION INDICATOR	2.23	□
4N 03	MON LE FLAPS-IN-TRANSIT LT ON	1.17	↓
4N 04	MON LE FLAPS-IN-TRANSIT LT OFF	1.17	↓
4E 16	CHECK FLAP LEVER AND POSITION INDIC AGREE	2.50	□
1P160058	CALL OUT - (FLAPS 1)	0.70	↓
1SC155	FLIGHT INSTRUMENT SCAN - C		▽
2J 43	MON EADI	15.00	□
3L 04	MON IVSI INDIC	15.00	□
3A 14	MON AIRSPEED INDIC	15.00	□
2K 16	MON EHSI DISPLAY	15.00	□
160017	SET FLAPS TO FLAPS 5		▽
160018	FLAP SET PROCEDURE		▽

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1P 10	MON VERBAL REPORT	0.70	I
4E 09	SET FLAP CONT LEVER TO FLAPS 5	2.69	0
4E 15	MONITOR FLAP POSITION INDICATOR	2.23	0
4N 03	MON LE FLAPS-IN-TRANSIT LT ON	1.17	I
4E 16	CHECK FLAP LEVER AND POSITION INDIC AGREE	2.50	0
4N 04	MON LE FLAPS-IN-TRANSIT LT OFF	1.17	I
1P160061 ISC105	CALL OUT -(FLAPS 5) FLIGHT INSTRUMENT SCAN - 0	0.70	I V
2K 14	MON EHSI DISPLAY	10.00	0
2J 42	MON EADI	10.00	0
3L 02	MON VERTICAL SPEED INDIC	10.00	0
3A 10	MONITOR AIRSPEED INDIC	10.00	0
LMNT54	UNITED 76 REACHES 170KTS AND RESUMES DESCENT TO 8000		V
160025	SET FLAPS TO FLAPS 15		V
160018	FLAP SET PROCEDURE		V
1P 10	MON VERBAL REPORT	0.70	I
4E 11	SET FLAP CONT LEVER TO FLAPS 15	2.46	0
4E 15	MONITOR FLAP POSITION INDICATOR	2.23	0
4N 03	MON LE FLAPS-IN-TRANSIT LT ON	1.17	I
4E 16	CHECK FLAP LEVER AND POSITION INDIC AGREE	2.50	0
4N 04	MON LE FLAPS-IN-TRANSIT LT OFF	1.17	I
1P160062 030007	CALL OUT -(FLAPS 15) ENGINE INSTRUMENT SCAN	0.70	I V
7F 30	MON ENG NO 2 EPR IND	0.44	I
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 21	MON NO 1 ENG N1 IND	0.44	I
7F 22	MON NO 2 ENG N1 IND	0.44	I
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	I

580. 630. 680. 730. 780. 830. 880.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 10	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
7F 20	MON NO 2 ENG VIBRATION AMPLITUDE INDIC	0.44	
ISC30S	FLIGHT INSTRUMENT SCAN - E		▽
2J 42	MON EADI	30.00	▬
3L 02	MON VERTICAL SPEED INDIC	30.00	▬
3A 10	MONITOR AIRSPEED INDIC	30.00	▬
2K 14	MON EHSI DISPLAY	30.00	▬
ISC10S	FLIGHT INSTRUMENT SCAN - B		▽
3L 02	MON VERTICAL SPEED INDIC	10.00	▬
3A 10	MONITOR AIRSPEED INDIC	10.00	▬
2K 14	MON EHSI DISPLAY	10.00	▬
2J 42	MON EADI	10.00	▬
LMNT09	CONTACT DENVER LCL CONTROL 118.3		▽
1PLMNT19	MSG- UNITED76 CONTACT DENVER LOCAL CONTROL ON 118.3	3.50	▬
1PLMNT20	COM- UNITED76 ROGER CONTACT DENVER LOCAL 118.3	3.50	▬

500. 630. 680. 730. 780. 830. 880.

CODE		EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
ISC30S		FLIGHT INSTRUMENT SCAN - E		▽
2K	14	MON EHSI DISPLAY	30.00	▬
2J	42	MON EADI	30.00	▬
3L	02	MON VERTICAL SPEED INDIC	30.00	▬
3A	10	MONITOR AIRSPEED INDIC	30.00	▬
1R	07	MON VHF-2R FREQ IND	0.77	I
1R	08	SET VHF-2R FREQ- WHOLE NO.S	2.09	0
1R	09	SET VHF-2R FREQ- FRACTIONS	1.58	0
1PLMNT03		COM- DENVER APRCH UNITED 76	3.00	0
ISC20S		FLIGHT INSTRUMENT SCAN - D		▽
2J	43	MON EADI	20.00	▬
3L	04	MON IVSI INDIC	20.00	▬
3A	14	MON AIRSPEED INDIC	20.00	▬
2K	16	MON EHSI DISPLAY	20.00	▬

500. 630. 680. 730. 780. 830. 880.

UNSHIFTED

MISSION - DENVER LMNTMC APP/LN
 WITH HOLDING PTTH -
 CONFIGURATION - AFD SIM DATA
 FLIGHT PHASE - NORTH 1 METERING AND
 SPACING AREA
 CREWMEMBER - COPILOT

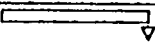
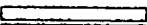


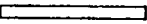
OCT 19, 1978

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
LMNT55	UNITED 76 CROSSES NORTH1 INTSCTN < 170 170KTS AND 8000		
030007	ENGINE INSTRUMENT SCAN		
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 12	MON NO 1 ENG VIBRA- TION AMPLITUDE INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
15C60S	FLIGHT INSTRUMENT SCAN - F		
9A 10	MONITOR AIRSPEED INDIC	60.00	

760. 810. 860. 910. 960. 1010. 1060.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
2K 15	MON EHSI DISPLAY	60.00	
2J 42	MON EADI	60.00	
3L 02	MON VERTICAL SPEED INDIC	60.00	
LMNT10	RECEIVE INST TO FLY DIRECT ALTURA		▽
030007	ENGINE INSTRUMENT SCAN		▽
1PLMNT21	MSG- UNITED76 FLY DIRECT TO ALTURA	3.00	0
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 30	MON ENG NO 2 EPR IND	0.44	I
7F 22	MON NO 2 ENG N1 IND	0.44	I
7F 21	MON NO 1 ENG N1 IND	0.44	I
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	I
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	I
7F 24	MON NO 2 ENG N2 IND	0.44	I
7F 23	MON NO 1 ENG N2 IND	0.44	I
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	I
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	I
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	I
7F 10	MON NO 2 ENG OIL TEMP INDIC	0.44	I
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	I
1PLMNT22	COM- UNITED76 ROGER DIRECT TO ALTURA	3.00	0
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	I
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	I
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	I
7F 12	MON NO 1 ENG VIBRA- TION AMPLITUDE INDIC	0.44	I
1SC605	FLIGHT INSTRUMENT SCAN - F		▽
3L 02	MON VERTICAL SPEED INDIC	60.00	
3A 10	MONITOR AIRSPEED INDIC	60.00	
2K 15	MON EHSI DISPLAY	60.00	

760. 810. 860. 910. 960. 1010. 1060.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
2J 42 030007	MON EADI ENGINE INSTRUMENT SCAN	60.00	
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 10	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
7F 12	MON NO 1 ENG VIBRA- TION AMPLITUDE INDIC	0.44	
ISC605	FLIGHT INSTRUMENT SCAN - F		▽
2K 15	MON EHSI DISPLAY	60.00	
2J 42	MON EADI	60.00	
3L 02	MON VERTICAL SPEED INDIC	60.00	
3A 10	MONITOR AIRSPEED INDIC	60.00	
LMNT11	RECEIVE INST TO FLY DIRECT TO GATE		▽
1PLMNT23	MSG- UNITED76 FLY DIRECT TO APPROACH GATE	3.50	□
1PLMNT24	COM- UNITED76 ROGER DIRECT TO GATE	3.00	□

760. 810. 860. 910. 960. 1010. 1060.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
140023	REPORT 1000 FT TO LEVEL OFF		▽
9H 02	MON CORR BARO ALT INDIC	2.13	0
1P140045	CALL OUT - [1000 FEET TO LEVEL OFF]	1.70	0
030007	ENGINE INSTRUMENT SCAN		▽
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 54	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 18	MON NO 2 ENG OIL PRESS INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 19	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
15C305	FLIGHT INSTRUMENT SCAN - E		▽
2K 14	MON EHSI DISPLAY	30.00	▬
2J 42	MON EADI	30.00	▬
9L 02	MON VERTICAL SPEED INDIC	30.00	▬
3A 10	MONITOR AIRSPEED INDIC	30.00	▬
030007	ENGINE INSTRUMENT SCAN		▽
7F 25	MON ENG NO 1 EPR IND	0.44	

760. 810. 860. 910. 960. 1010. 1060.

CODE		EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS				
7F	30	MON ENG NO 2 EPR IND	0.44					
7F	22	MON NO 2 ENG N1 IND	0.44					
7F	21	MON NO 1 ENG N1 IND	0.44					
7F	32	MON ENG NO 2 EXH GAS TEMP IND	0.44					
7F	31	MON ENG NO 1 EXH GAS TEMP IND	0.44					
7F	24	MON NO 2 ENG N2 IND	0.44					
7F	23	MON NO 1 ENG N2 IND	0.44					
7F	34	MON ENG NO 2 FUEL FLOW INDIC	0.44					
7F	33	MON ENG NO 1 FUEL FLOW INDIC	0.44					
7F	09	MON NO 1 ENG OIL PRESS INDIC	0.44					
7F	18	MON NO 2 ENG OIL TEMP INDIC	0.44					
7F	10	MON NO 1 ENG OIL TEMP INDIC	0.44					
7F	19	MON NO 2 ENG OIL QTY INDIC	0.44					
7F	11	MON NO 1 ENG OIL QTY INDIC	0.44					
7F	20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44					
7F	12	MON NO 1 ENG VIBRA- TION AMPLITUDE INDIC	0.44					
				760.	810.	860.	910.	960.
								1010.
								1060.

UNSHIFTED

MISSION TIMELINE
 MISSION - DENVER LMNTMC APP/LN
 WITH HOLDING PTN -
 CONFIGURATION - AFD SIM DATA
 FLIGHT PHASE - FINAL APP TO LANDING
 FOR LONGMONT

CREWMEMBER - COPILOT

OCT 19, 1978

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
LMNT56	U 76 CROSSES GATE SETS FLAPS TO 25		▽
LMNT12	SLOWS TO APRCH SPD RECEIVE INST TO SLOW TO APRCH SPEED AND CALL TOWER AT O.M.		▽
1PLMNT25	MSG- UNITED76 REDUCE TO APPROACH SPEED CONTACT THR AT O.M.	5.50	□
030007	ON120.0 ENGINE INSTRUMENT SCAN		▽
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 30	MON ENG NO 2 EPR IND	0.44	I
7F 22	MON NO 2 ENG N1 IND	0.44	I
7F 21	MON NO 1 ENG N1 IND	0.44	I
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	I
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	I
7F 24	MON NO 2 ENG N2 IND	0.44	I
7F 23	MON NO 1 ENG N2 IND	0.44	I
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	I
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	I
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	I
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	I
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	I
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	I
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	I

990.

1040.

1090.

1140.

1190.

1240.

1290.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1PLMNT26	COM- UNITED76 ROGER SLOW TO APPROACH SPD CONTACT TOWER 120.0 AT 0.4.	5.50	□
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	I
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	I
160060 ISC105	EXTEND LANDING GEAR FLIGHT INSTRUMENT SCAN - 0		▽ ▽
9A 10	MONITOR AIRSPEED INDIC	10.00	□
2K 14	MON EHSI DISPLAY	10.00	□
4D 03	SET LANDING GEAR LEVER TO DOWN POSITION	3.27	□
2J 42	MON EADI	10.00	□
3L 02	MON VERTICAL SPEED INDIC	10.00	□
4D 05	MONITOR NOSE GEAR DOWN AND LOCKED LT ON	0.54	I
4D 09	MONITOR LEFT/RT GEAR DOWN AND LOCKED LT ON	0.54	I
160053	SET FLAPS TO FLAPS 25		▽
160018	FLAP SET PROCEDURE		▽
1P 10	MON VERBAL REPORT	0.70	I
4E 12	SET FLAP CONT LEVER TO FLAPS 25	2.90	□
4E 15	MONITOR FLAP POSITION INDICATOR	2.23	□
4N 03	MON LE FLAPS-IN-TRANSIT LT ON	1.17	I
4E 16	CHECK FLAP LEVER AND POSITION INDIC AGREE	2.50	□
4N 04	MON LE FLAPS-IN-TRANSIT LT OFF	1.17	I
1P160070 030007	CALL OUT -[FLAPS 25] ENGINE INSTRUMENT SCAN	0.70	I ▽
7F 30	MON ENG NO 2 EPR IND	0.44	I
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 21	MON NO 1 ENG N1 IND	0.44	I
7F 22	MON NO 2 ENG N1 IND	0.44	I

990. 1040. 1090. 1140. 1190. 1240. 1290.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 91	MON ENG NO 1 EXH GAS TEMP IND	0.44	I
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	I
7F 23	MON NO 1 ENG N2 IND	0.44	I
7F 24	MON NO 2 ENG N2 IND	0.44	I
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	I
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	I
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	I
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	I
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	I
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	I
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	I
7F 12	MON NO 1 ENG VIBRA- TION AMPLITUDE INDIC	0.44	I
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	I
ISC205	FLIGHT INSTRUMENT SCAN - 0		▽
2J 43	MON EADI	20.00	▬
3L 04	MON IVSI INDIC	20.00	▬
3A 14	MON AIRSPEED INDIC	20.00	▬
2K 16	MON EHSI DISPLAY	20.00	▬
LMNT57	UNITED 76 CROSSES O.M. SETS FLAPS 40		▽
LNDCLR	CONTACT TOWER FOR FINAL LANDING CLEAR- ANCE		▽
1B 05	SET VHF-2 COMM TFR SW TO LEFT	2.39	□
1B 17	COMM VIA VHF-2	5.00	□
1B 25	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	5.00	□
1PLNOC12	RADIO COMM-CONVER TOWER, THIS IS U 24	4.00	□
	OVER THE GATE		
160057	INBOUND FOR LNDNG SET FLAPS TO FLAPS 40		▽
160018	FLAP SET PROCEDURE		▽

990. 1040. 1090. 1140. 1190. 1240. 1290.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1P 10	MON VERBAL REPORT	0.70	I
1B 19	MON VHF-2 COMM AUDIO	7.00	□
1PLNDCL3	ZERO EIGHT, OVER]	1.00	I
4E 14	SET FLAP CONT LEVER	2.92	□
	TO FLAPS 40		
4E 15	MONITOR FLAP	2.23	□
	POSITION INDICATOR		
4N 03	MON LE FLAPS-IN-	1.17	I
	TRANSIT LT ON		
1PLNDCL4	MON RADIO COMM -	4.00	□
	[UNITED 24, DENVER		
	TOWER, ROGER, CLEAR		
	TO LAND RUNWAY TWO		
1PLNDCL5	SIX, WIND TWO ONE	3.00	□
	ZERO DEGREES AT ZERO		
	NINER.]		
4E 16	CHECK FLAP LEVER AND	2.50	□
	POSITION INDIC AGREE		
1B 29	ACTUATE COMM 2 PUSH-	1.70	□
	TO-TALK SW		
1B 15	COMM VIA VHF-2	1.70	□
1PLNDCL1	RADIO COMM -	1.70	□
	[U24, ROGER]		
4N 04	MON LE FLAPS-IN-	1.17	I
	TRANSIT LT OFF		
1P160073	CALL OUT -[FLAPS 40]	0.70	I
ISC905	FLIGHT INSTRUMENT		▽
	SCAN - G		
3L 03	MON VERTICAL SPEED	90.00	=====
	INDIC		
3A 11	MONITOR AIRSPEED	90.00	=====
	INDIC		
2K 15	MON EHSI DISPLAY	90.00	=====
2J 43	MON EADI	90.00	=====
160065	DESCEND THRU		▽
	-DECISION HEIGHT		
3R 12	MON DECISION HGT LT	2.58	□
	ON FDI		
1P160086	CALL OUT -[DECISION	0.80	I
	HEIGHT]		
ISC105	FLIGHT INSTRUMENT		▽
	SCAN - B		
2K 14	MON EHSI DISPLAY	10.00	□
2J 42	MON EADI	10.00	□
3L 02	MON VERTICAL SPEED	10.00	□
	INDIC		

990. 1040. 1090. 1140. 1190. 1240. 1290.

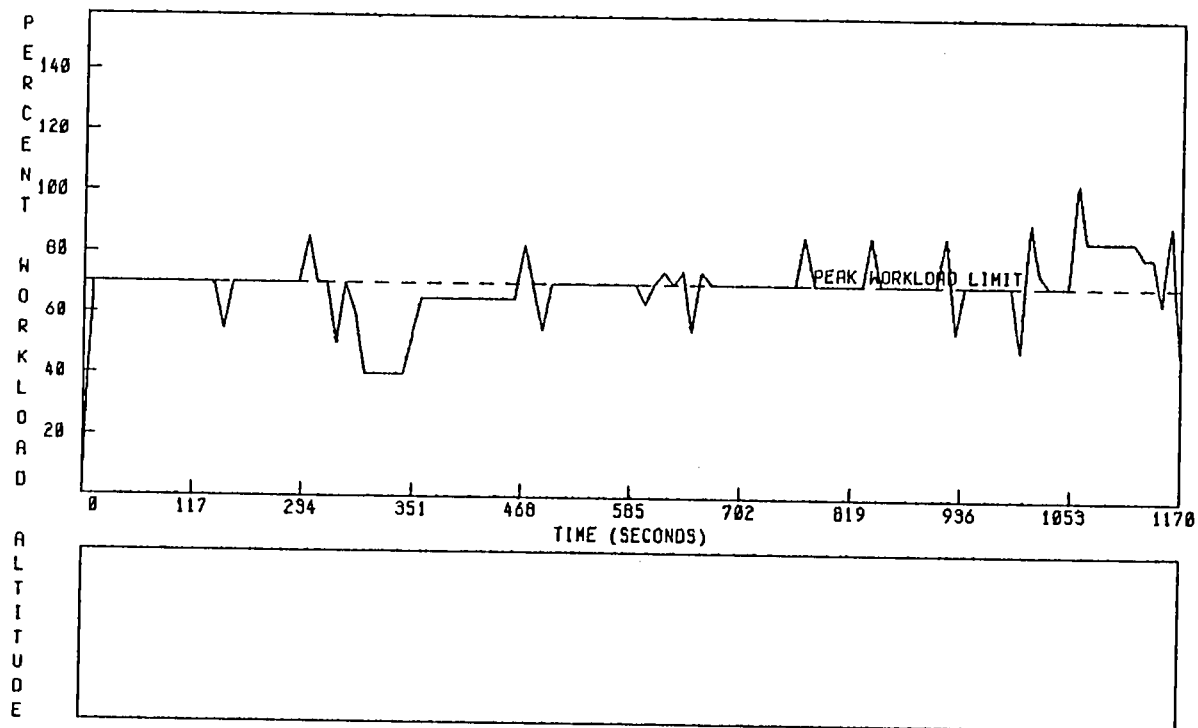
CODE		EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
3A	10	MONITOR AIRSPEED INDIC	10.00	<div><div></div></div>

990.1040.1090.1140.1190.1240.1290.

UNSHIFTED
OCT 19, 1978

WORKLOAD HISTOGRAM
CREWMEMBER- PILOT
CHANNEL- TOTAL VISION
CONFIGURATION- AFD SIM DATA

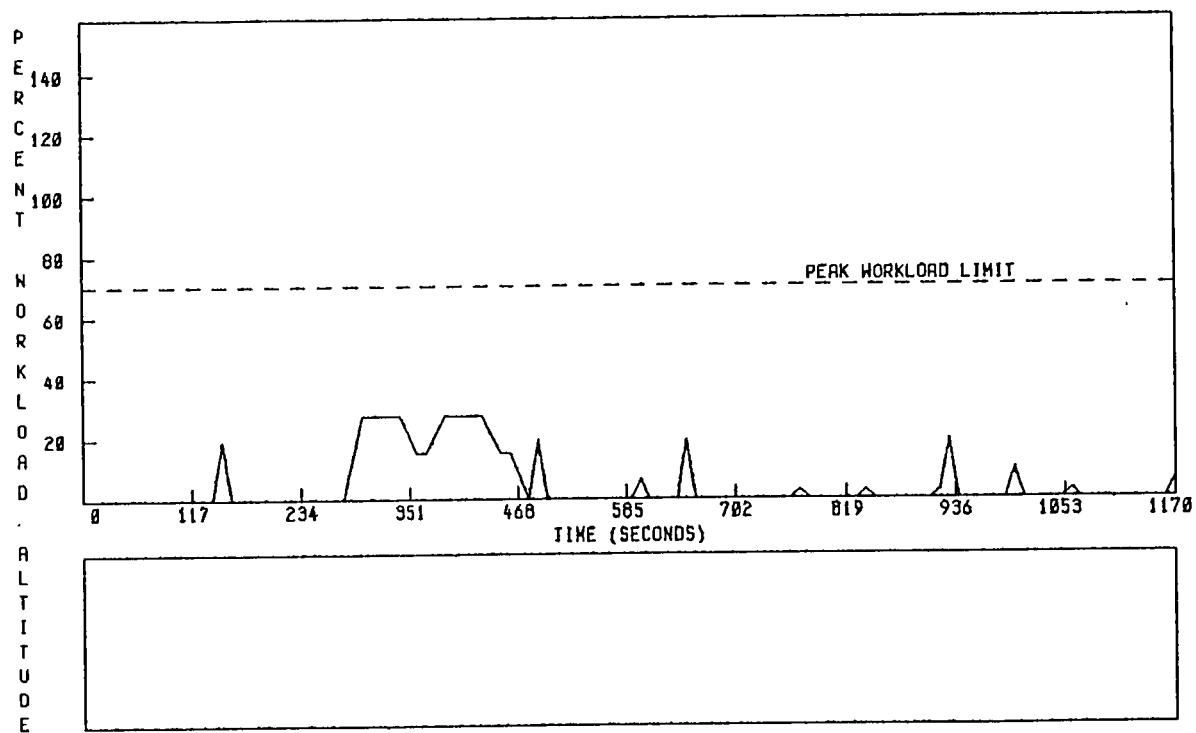
MISSION
DENVER LMNTZD APP/LN
WITH HOLDING PTN -



UNSHIFTED
OCT 19, 1978

WORKLOAD HISTOGRAM
CREWMEMBER- PILOT
CHANNEL- TOTAL MOTOR
CONFIGURATION- AFD 91M DATA

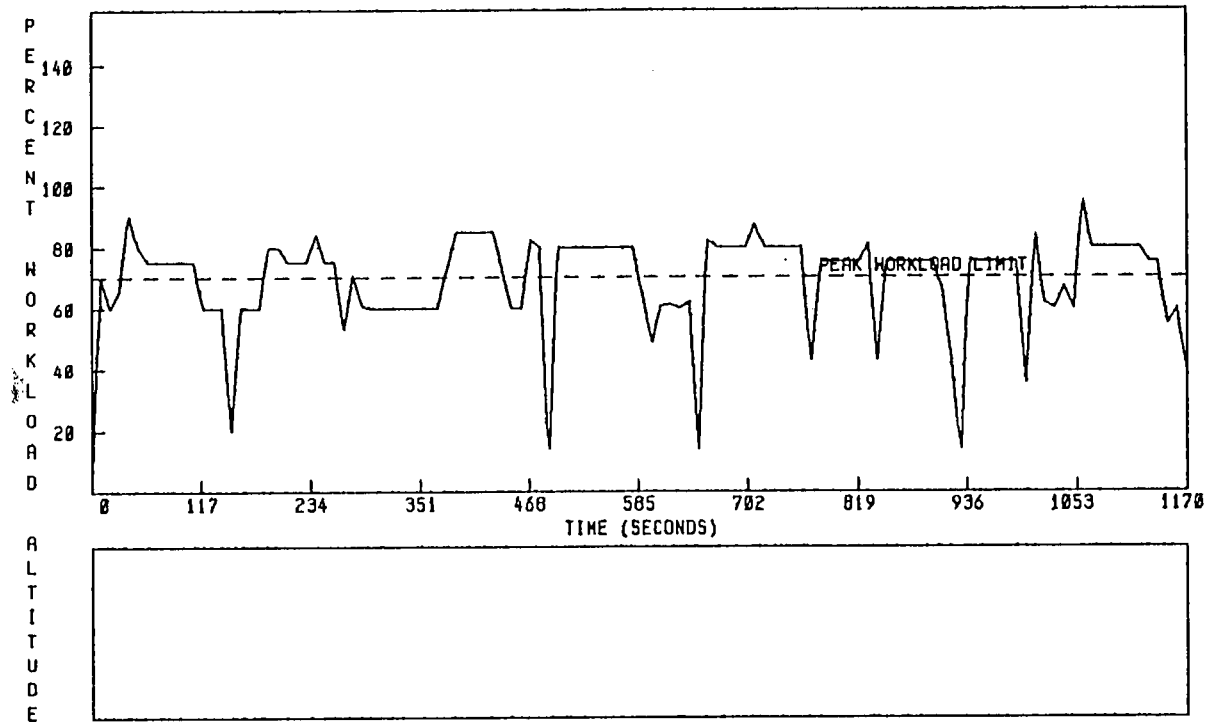
MISSION
DENVER LMNT20 APP/LN
WITH HOLDING PTYN -



UNSHIFTED
OCT 19, 1978

WORKLOAD HISTOGRAM
CREWMEMBER- PILOT
CHANNEL- COGNITION
CONFIGURATION- AFD SIM DATA

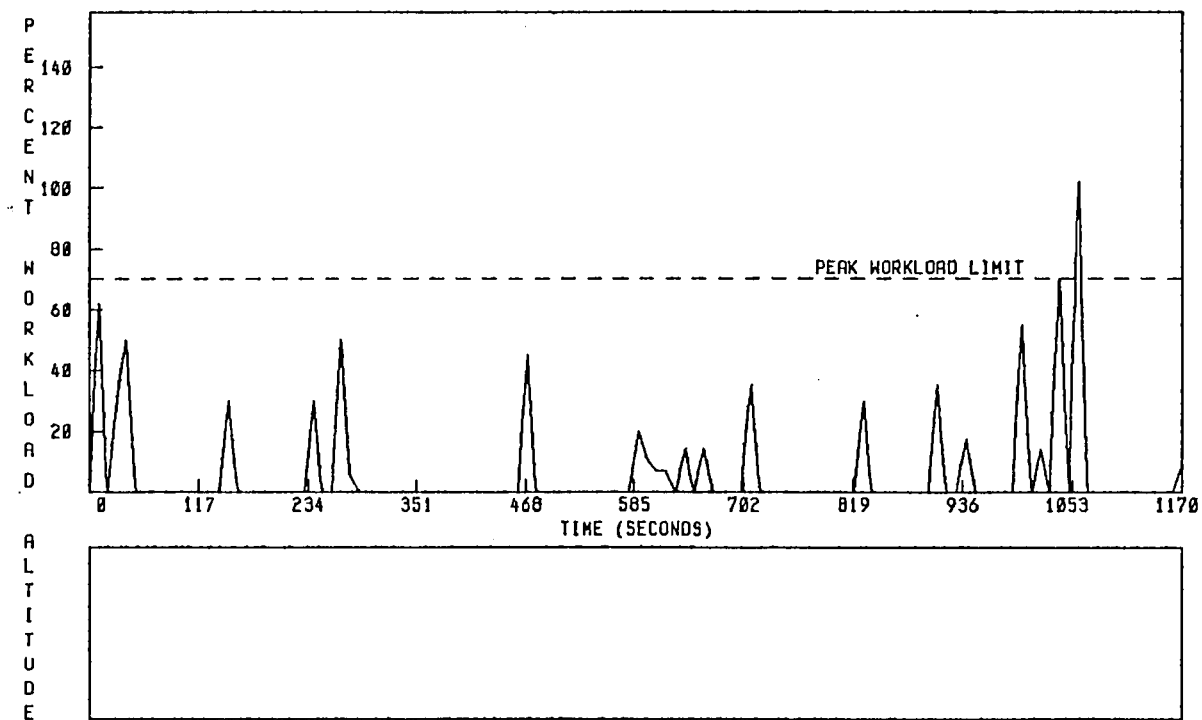
MISSION
DENVER LMNT20 APP/LN
WITH HOLDING PTN -



UNSHIFTED
OCT 19, 1978

WORKLOAD HISTOGRAM
CREWMEMBER- PILOT
CHANNEL- TOTAL COMMUNICATION
CONFIGURATION- AFD SIM DATA

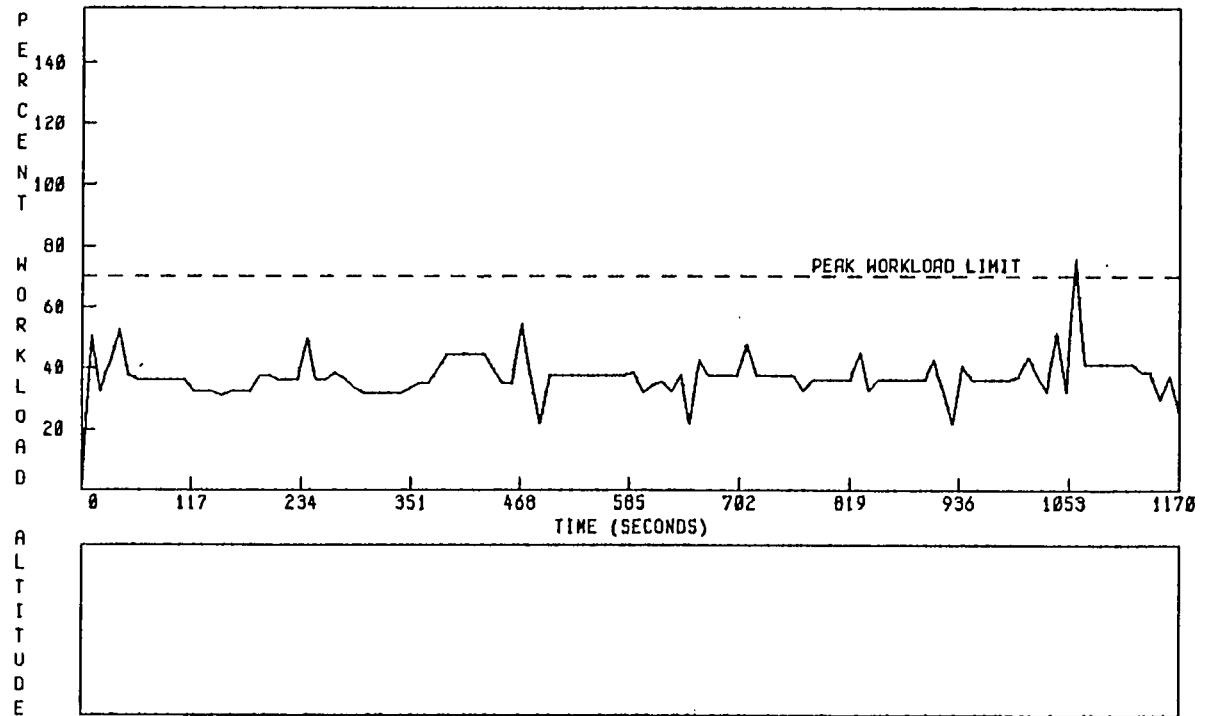
MISSION
DENVER LMNT2D APP/LN
WITH HOLDING PTN -

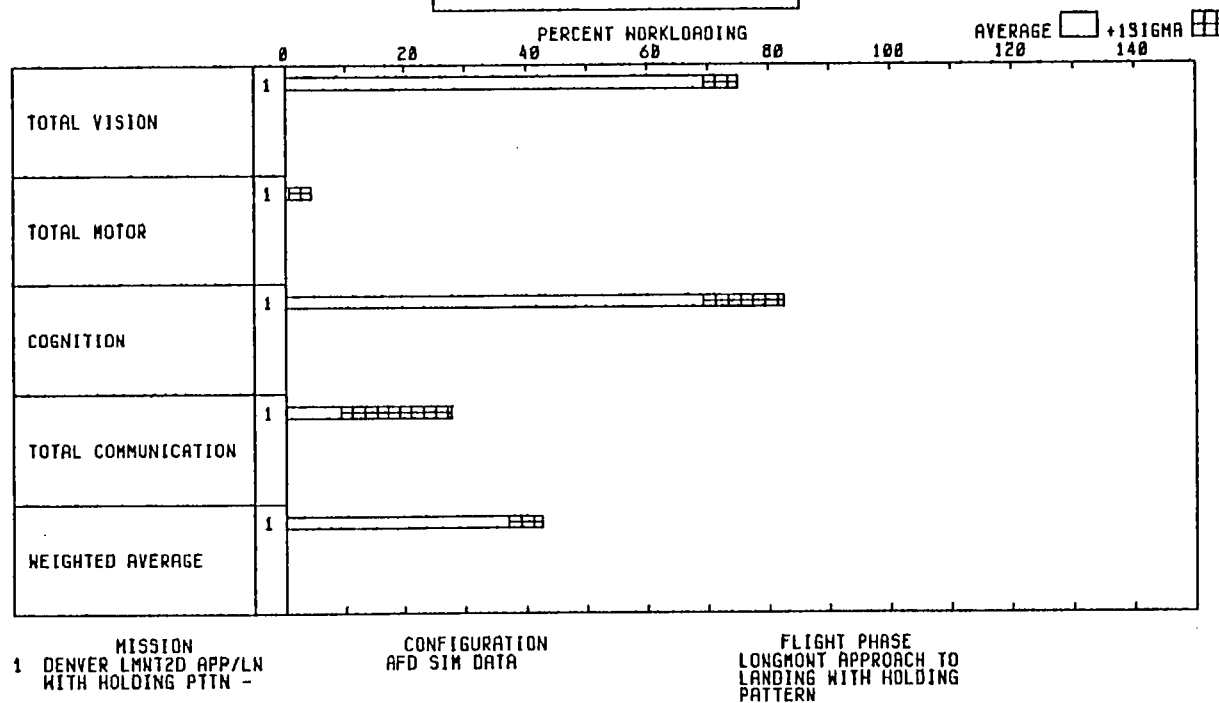


UNSHIFTED
OCT 19, 1978

WORKLOAD HISTOGRAM
CREWMEMBER- PILOT
CHANNEL- WEIGHTED CHANNEL AVERAGE
CONFIGURATION- AFD SIM DATA

MISSION
DENVER LMNTD APP/LN
WITH HOLDING PTN -

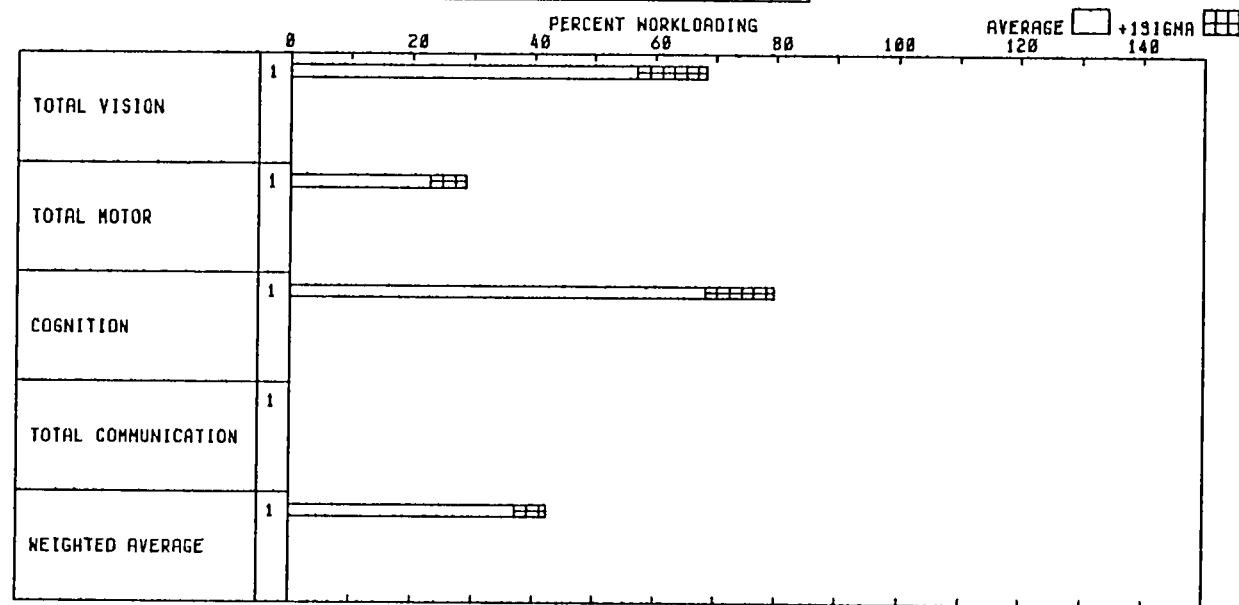




UNSHIFTED

WORKLOAD SUMMARY
CREWMEMBER - PILOT

OCT 19, 1978



MISSION
1 DENVER LINT20 APP/LN
WITH HOLDING PTN -

CONFIGURATION
AFD SIM DATA

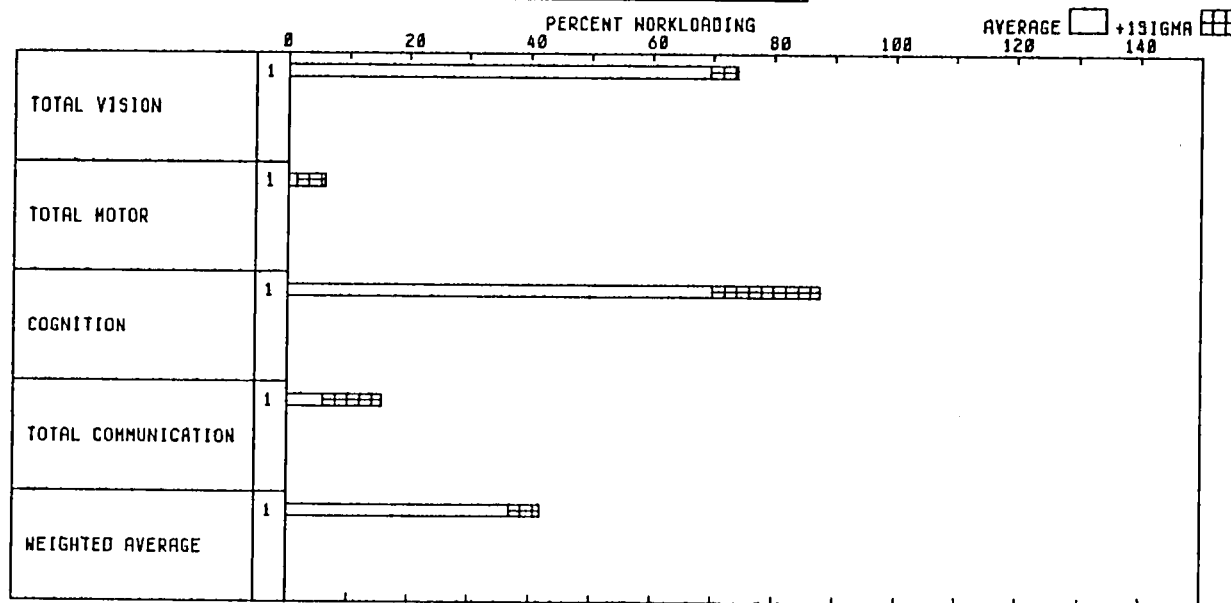
FLIGHT PHASE
HOLDING PATTERN FOR
LONGMONT APP BETWEEN
MEEKER AND LONGMNT

FLIGHT PHASE
AIRCRAFT DEPARTS HLD
DESCENDING TO 11000

UNSHIFTED

WORKLOAD SUMMARY
CREWMEMBER - PILOT

OCT 19, 1978



MISSION
1 DENVER LMT20 APP/LN
WITH HOLDING PTN -

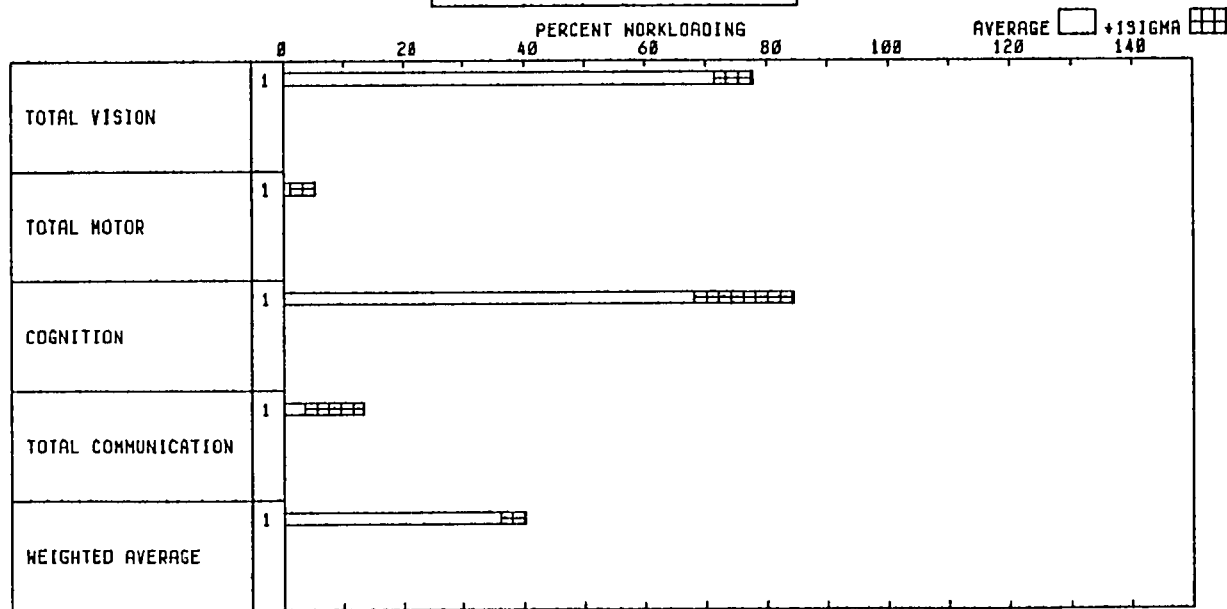
CONFIGURATION
AFD SIM DATA

FLIGHT PHASE
AIRCRAFT DESCENDS
TO 8000 AND SLOWS
TO 170 KTS

UNSHIFTED

WORKLOAD SUMMARY
CREWMEMBER - PILOT

OCT 19, 1978



MISSION
1 DENVER LMNT2D APP/LN
WITH HOLDING PTTN -

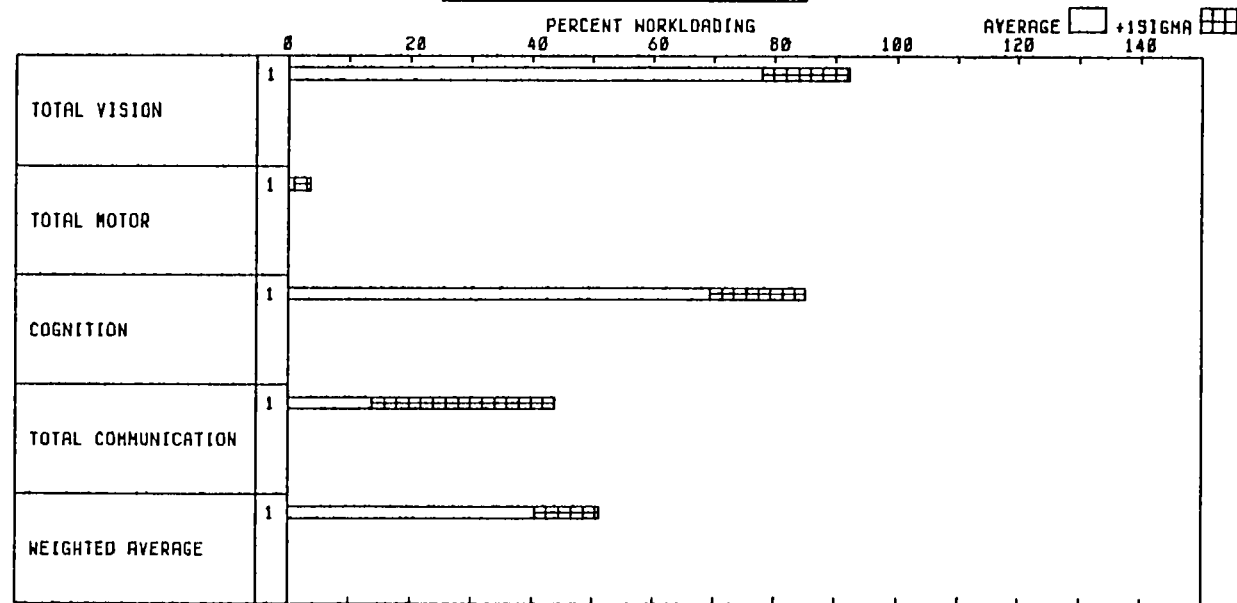
CONFIGURATION
AFD SIM DATA

FLIGHT PHASE
NORTH 1 METERING AND
SPACING AREA

UNSHIFTED

WORKLOAD SUMMARY
CREWMEMBER - PILOT

OCT 19, 1978



MISSION
1 : DENVER LINT20 APP/LN
X WITH HOLDING PTN -

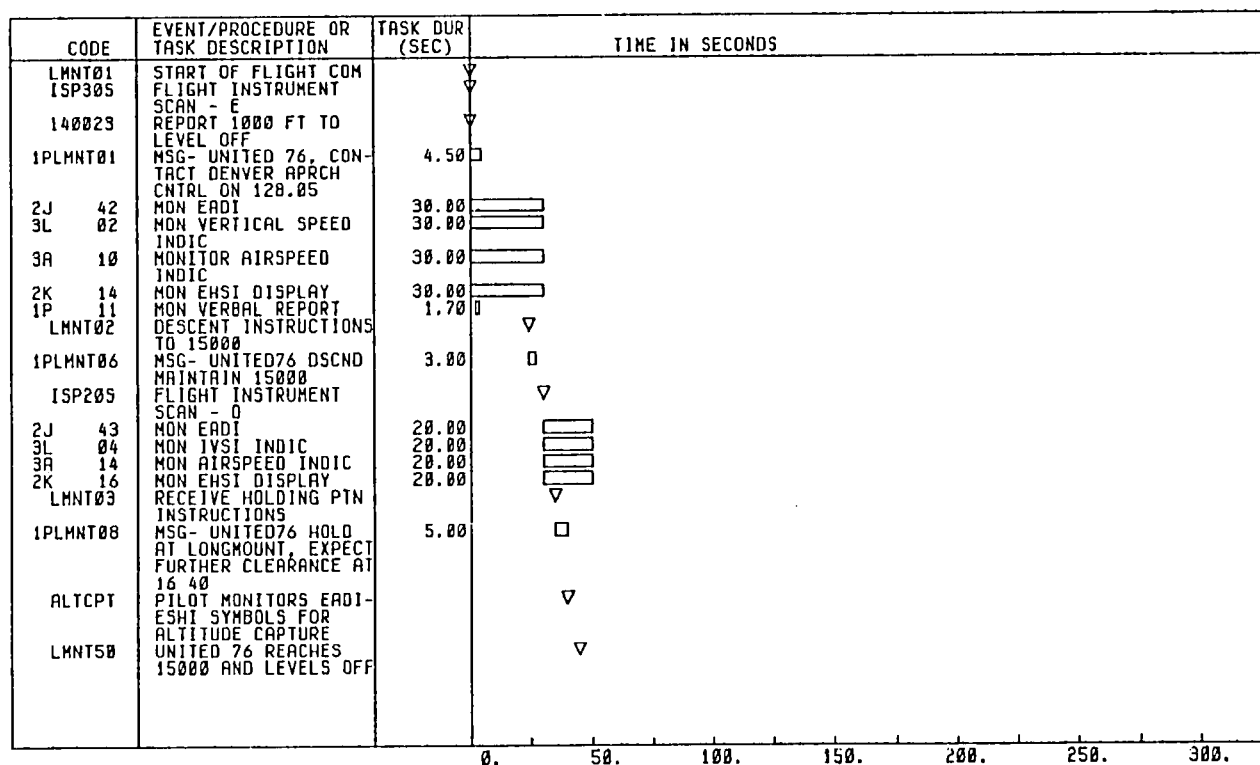
CONFIGURATION
AFD SIM DATA

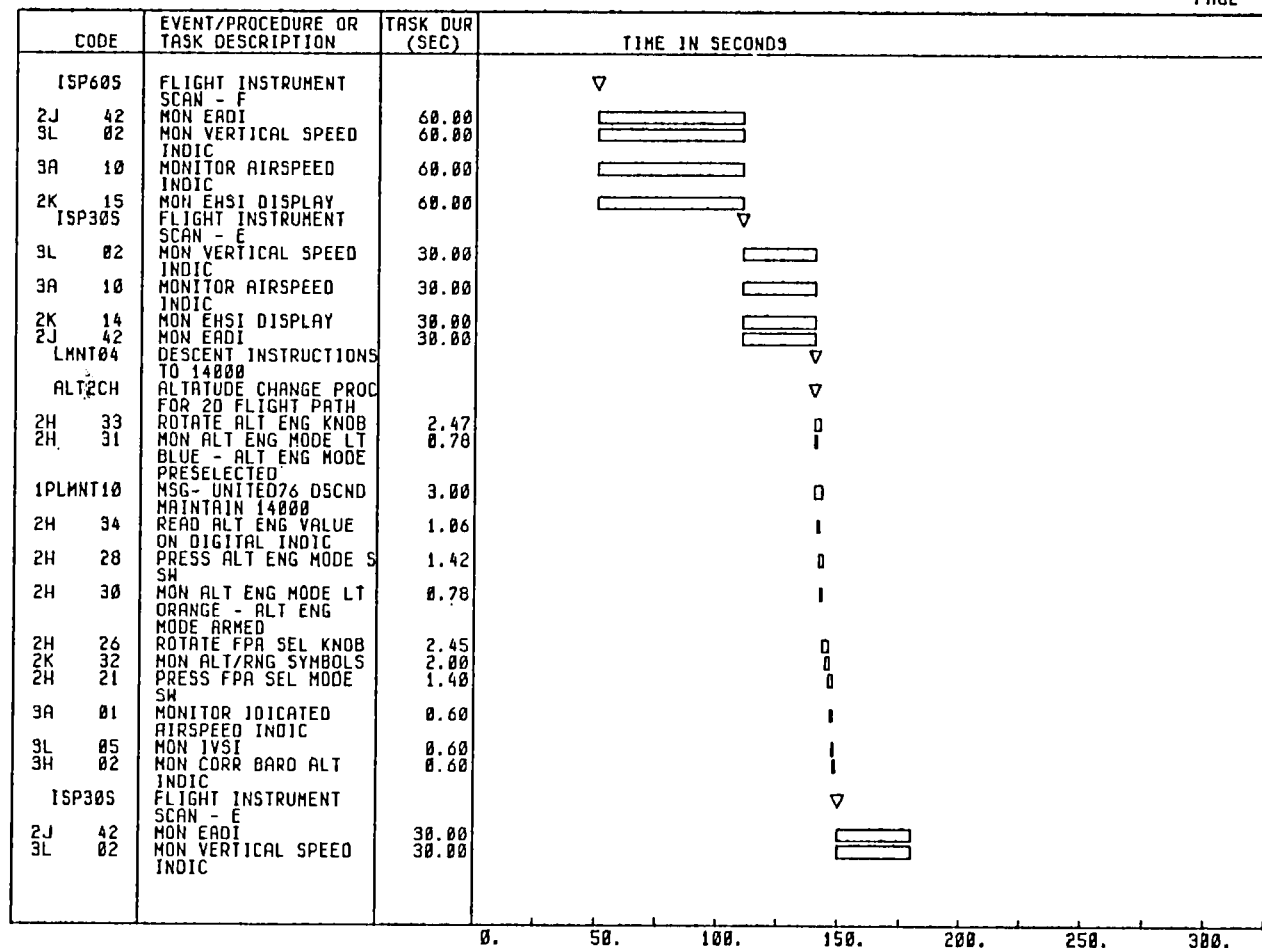
FLIGHT PHASE
FINAL APP TO LANDING
FOR LONGMONT

UNSHIFTED

MISSION TIMELINE
 MISSION - DENVER LMNT20 APP/LN
 WITH HOLDING PTTN -
 CONFIGURATION - AFD SIM DATA
 FLIGHT PHASE - LONGMONT APPROACH TO
 LANDING WITH HOLDING
 PATTERN
 CREWMEMBER - PILOT

OCT 19, 1978





CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
3A 10	MONITOR AIRSPEED INDIC	30.00	
2K 14	MON EHSI DISPLAY	30.00	
ISP205	FLIGHT INSTRUMENT SCAN - D		
3L 04	MON IVSI INDIC	20.00	
3A 14	MON AIRSPEED INDIC	20.00	
2K 16	MON EHSI DISPLAY	20.00	
2J 43	MON EADI	20.00	
ALTCPT	PILOT MONITORS EADI-ESHI SYMBOLS FOR ALTITUDE CAPTURE		
ISP605	FLIGHT INSTRUMENT SCAN - F		
2K 15	MON EHSI DISPLAY	60.00	
2J 42	MON EADI	60.00	
3L 02	MON VERTICAL SPEED INDIC	60.00	
3A 10	MONITOR AIRSPEED INDIC	60.00	
LMNT05	RECEIVE SPEED REDUCTION TO 250 INST		
AFD5PD	AIRSPEED CHANGE PROC		
1PLMNT12	MSG- UNITED76 REDUCE SPEED TO 250KTS	3.00	
2H 47	ROTATE CAS ENG KNOB	2.45	
2H 48	READ CAS ENG VALUE ON DIGITAL INDIC	1.04	
ISP055	FLIGHT INSTRUMENT SCAN - A		
3A 10	MONITOR AIRSPEED INDIC	5.00	
2K 16	MON EHSI DISPLAY	5.00	
2J 42	MON EADI	5.00	
3L 02	MON VERTICAL SPEED INDIC	5.00	
LMNT06	RECEIVE HOLDING PTN INSTRUCTIONS		
AFD5PD	AIRSPEED CHANGE PROC		
2H 47	ROTATE CAS ENG KNOB	2.45	
1PLMNT13	MSG- UNITED76 HOLD AT LONGMONT EXPECT FURTHER CLEARANCE AT 16 40 42	5.50	
2H 48	READ CAS ENG VALUE ON DIGITAL INDIC	1.04	

0. 50. 100. 150. 200. 250. 300.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
ISP055	FLIGHT INSTRUMENT SCAN - A		▽
3L 02	MON VERTICAL SPEED INDIC	5.00	□
3A 10	MONITOR AIRSPEED INDIC	5.00	□
2K 16	MON EHSI DISPLAY	5.00	□
2J 42	MON EADI	5.00	□
ISP105	FLIGHT INSTRUMENT SCAN - B		▽
3A 10	MONITOR AIRSPEED INDIC	10.00	□
2K 14	MON EHSI DISPLAY	10.00	□
2J 42	MON EADI	10.00	□
3L 02	MON VERTICAL SPEED INDIC	10.00	□

0. 50. 100. 150. 200. 250. 300.









UNSHIFTED

MISSION TIMELINE
 MISSION - DENVER LMNT20 APP/LN
 WITH HOLDING PTN -
 CONFIGURATION - AFD SIM DATA
 FLIGHT PHASE - HOLDING PATTERN FOR
 LONGMONT APP BETWEEN
 MEEKER AND LONGMNT
 CREWMEMBER - PILOT

OCT 19, 1978

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
LMNT51	UNITED 76 CROSSES LONGMONT INTSCTN AND ENTERS HLOG PTN AT 210KTS		▽
HLDPTN	HOLDING PATTERN PROC -RIGHT TURNS -1 1/2 MIN. LEGS -FOR METERING AND SPACING		▽
3S 20	MON INDIC OF MARKER FLY OVER ON CI	0.50	I
4A 66	MANUALLY CONTROL A/C TO MAKE RIGHT TURN IN HOLDING PATTERN	60.00	
2K 33	MON CURVED TREND VECTOR SYMBOLS	60.00	
9A 10	MONITOR AIRSPEED INDIC	60.00	
3L 03	MON VERTICAL SPEED INDIC	60.00	
3H 06	MON ALTIMETER	60.00	
2K 46	MON STRAIGHT TREND VECTOR SYMBOL	30.00	
3H 06	MON ALTIMETER	30.00	
3A 10	MONITOR AIRSPEED INDIC	30.00	
3L 02	MON VERTICAL SPEED INDIC	30.00	
4A 64	MANUALLY CONTROL A/C	30.00	
2K 14	MON EHSI DISPLAY	30.00	
2K 33	MON CURVED TREND VECTOR SYMBOLS	60.00	
9A 10	MONITOR AIRSPEED INDIC	60.00	
3L 03	MON VERTICAL SPEED INDIC	60.00	
3H 06	MON ALTIMETER	60.00	

280. 330. 380. 430. 480. 530. 580.

CODE		EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
4A	66	MANUALLY CONTROL A/C TO MAKE RIGHT TURN IN HOLDING PATTERN	60.00	
2K	15	MON EHSI DISPLAY	60.00	
2K	46	MON STRAIGHT TREND VECTOR SYMBOL	30.00	
3H	06	MON ALTIMETER	30.00	
3A	10	MONITOR AIRSPEED INDIC	30.00	
3L	02	MON VERTICAL SPEED INDIC	30.00	
4A	64	MANUALLY CONTROL A/C	30.00	
2K	14	MON EHSI DISPLAY	30.00	

280. 330. 380. 430. 480. 530. 580.

UNSHIFTED

MISSION TIMELINE
 MISSION - DENVER LMNT20 APP/LN
 WITH HOLDING PTN -
 CONFIGURATION - AFD SIM DATA
 FLIGHT PHASE - AIRCRAFT DEPARTS HLD
 DESCENDING TO 11000
 CREWMEMBER - PILOT

OCT 19, 1978

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
LMNT52	UNITED 76 DEPARTS HLDG PTN CONTINUING FLIGHT PATH		▽
LMNT07	RECEIVE DESCENT INST AND SPEED INCREASE		▽
AFDSPD 1PLMNT15	AIRSPD CHANGE PROC MSG- UNITED76 INCRSE SPEED TO 220KTS	4.50	□
2H 47	DSCND MAINTAIN 11000	2.45	□
2H 48	ROTATE CAS ENG KNOB READ CAS ENG VALUE ON DIGITAL INDIC	1.04	□
ISP155	FLIGHT INSTRUMENT SCAN - C		▽
2K 16	MON EHSI DISPLAY	15.00	□
2J 43	MON EADI	15.00	□
9L 04	MON IVSI INDIC	15.00	□
3A 14	MON AIRSPEED INDIC	15.00	□
LMNT58	PILOT SETS HLD PTN SPEED ON CAS INDIC		▽
ALT2CH	ALTITUDE CHANGE PROC FOR 20 FLIGHT PATH		▽
2H 33	ROTATE ALT ENG KNOB	2.47	□
2H 31	MON ALT ENG MODE LT BLUE - ALT ENG MODE PRESELECTED	0.78	□
2H 34	READ ALT ENG VALUE ON DIGITAL INDIC	1.06	□
2H 28	PRESS ALT ENG MODE S SW	1.42	□
2H 30	MON ALT ENG MODE LT ORANGE - ALT ENG MODE ARMED	0.78	□
2H 26	ROTATE FPA SEL KNOB	2.45	□
2K 32	MON ALT/RNG SYMBOLS	2.00	□
2H 21	PRESS FPA SEL MODE SW	1.40	□

460. 480. 500. 520. 540. 560. 580.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
9A 01	MONITOR INDICATED AIRSPEED INDIC	0.60	0
3L 05	MON IVSI	0.60	1
3H 02	MON CORR BARO ALT INDIC	0.60	0
ISP905	FLIGHT INSTRUMENT SCAN - 6		▽
9A 11	MONITOR AIRSPEED INDIC	90.00	
2K 15	MON EHSI DISPLAY	90.00	
2J 43	MON EADI	90.00	
3L 03	MON VERTICAL SPEED INDIC	90.00	
ISP105	FLIGHT INSTRUMENT SCAN - 8		▽
2K 14	MON EHSI DISPLAY	10.00	
2J 42	MON EADI	10.00	
3L 02	MON VERTICAL SPEED INDIC	10.00	
9A 10	MONITOR AIRSPEED INDIC	10.00	

460. 480. 500. 520. 540. 560. 580.

UNSHIFTED

MISSION TIMELINE
 MISSION - DENVER LMNT20 APP/LN
 WITH HOLDING PTN -
 CONFIGURATION - AFD SIM DATA
 FLIGHT PHASE - AIRCRAFT DESCENDS
 TO 8000 AND SLOWS
 TO 170 KTS
 CREWMEMBER - PILOT










OCT 19, 1978

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
LMNT53	UNITED 76 CROSSES BRIGHTON INTSCN < 11000. LEVELS OFF AND SLOWS TO 170		▽
LMNT08	RECEIVE SPEED REDUCT ION INSTRUCTIONS-170		▽
1PLMNT17	MSG- UNITED76 REDUCE SPEED TO 1 KTS	3.00	□
ALTCPT	PILOT MONITORS EADI- ESHI SYMBOLS FOR ALTITUDE CAPTURE		▽
AFDALT	ALTITUDE CHANGE PROC		▽
2H 33	ROTATE ALT ENG KNOB	2.47	□
2H 34	READ ALT ENG VALUE ON DIGITAL INDIC	1.06	!
AFD3PD	AIRSPD CHANGE PROC		▽
2H 47	ROTATE CAS ENG KNOB	2.45	□
2H 48	READ CAS ENG VALUE ON DIGITAL INDIC	1.04	!
ISP055	FLIGHT INSTRUMENT SCAN - A		▽
3L 02	MON VERTICAL SPEED INDIC	5.00	□
3A 10	MONITOR AIRSPEED INDIC	5.00	□
2K 16	MON EHSI DISPLAY	5.00	□
2J 42	MON EADI	5.00	□
ISP305	FLIGHT INSTRUMENT SCAN - E		▽
3A 10	MONITOR AIRSPEED INDIC	30.00	▬
2K 14	MON EHSI DISPLAY	30.00	▬
2J 42	MON EADI	30.00	▬
3L 02	MON VERTICAL SPEED INDIC	30.00	▬
160011	SET FLAPS TO FLAPS 1		▽
1P160050	CALL OUT -[FLAPS 1]	0.70	!

500. 630. 680. 730. 780. 830. 880.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1P 10	MON VERBAL REPORT	0.70	I
7F 30	MON ENG NO 2 EPR IND	0.44	I
7F 25	MON ENG NO 1 EPR IND	0.44	I
160017	SET FLAPS TO FLAPS 5		▽
160018	FLAP SET PROCEDURE		▽
ISP105	FLIGHT INSTRUMENT		▽
	SCAN - B		
3A 10	MONITOR AIRSPEED	10.00	□
	INDIC		
2K 14	MON EHSI DISPLAY	10.00	□
1P160061	CALL OUT - [FLAPS 5]	0.70	I
2J 42	MON EADI	10.00	□
3L 02	MON VERTICAL SPEED	10.00	□
	INDIC		
1P 10	MON VERBAL REPORT	0.70	I
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 30	MON ENG NO 2 EPR IND	0.44	I
ALT2CH	ALTITUDE CHANGE PROC		▽
	FOR 20 FLIGHT PATH		
2H 31	MON ALT ENG MODE LT	0.78	I
	BLUE - ALT ENG MODE		
	PRESELECTED		
2H 33	ROTATE ALT ENG KNOB	2.47	0
2H 34	READ ALT ENG VALUE	1.06	I
	ON DIGITAL INDIC		
2H 28	PRESS ALT ENG MODE S	1.42	I
	SW		
2H 30	MON ALT ENG MODE LT	0.78	I
	ORANGE - ALT ENG		
	MODE ARMED		
2H 26	ROTATE FPA SEL KNOB	2.45	0
2K 32	MON ALT/RNG SYMBOLS	2.00	0
LMNT54	UNITED 76 REACHES		▽
	170KTS AND RESUMES		
	DESCENT TO 8000		
2H 21	PRESS FPA SEL MODE	1.40	I
	SW		
3A 01	MONITOR INDICATED	0.60	I
	AIRSPEED INDIC		
3L 05	MON IVSI	0.60	I
3H 02	MON CORR BARO ALT	0.60	I
	INDIC		
160025	SET FLAPS TO FLAPS		▽
15			
160018	FLAP SET PROCEDURE		▽
ISP905	FLIGHT INSTRUMENT		▽
	SCAN - G		

500. 630. 680. 730. 780. 830. 880.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
9A 11	MONITOR AIRSPEED INDIC	90.00	
2K 15	MON EHSI DISPLAY	90.00	
1P160062	CALL OUT -[FLAPS 15]	0.70	
2J 43	MON EADI	90.00	
3L 03	MON VERTICAL SPEED INDIC	90.00	
1P 10	MON VERBAL REPORT	0.70	
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 30	MON ENG NO 2 EPR IND	0.44	
LMNT09	CONTACT DENVER LCL CONTROL 118.3		▽
1PLMNT19	MSG- UNITED76 CONTACT DENVER LOCAL CONTROL ON 110.3	3.50	□
ALTCPT	PILOT MONITORS EADI- ESHI SYMBOLS FOR		▽
ISP205	ALTITUDE CAPTURE FLIGHT INSTRUMENT SCAN - 0		▽
3L 04	MON IVSI INDIC	20.00	
9A 14	MON AIRSPEED INDIC	20.00	
2K 16	MON EHSI DISPLAY	20.00	
2J 43	MON EADI	20.00	

580.

630.

680.

730.

780.

830.

880.

UNSHIFTED

MISSION TIMELINE
MISSION - DENVER LMNT20 APP/LN
WITH HOLDING PTN -
CONFIGURATION - AFD SIM DATA
FLIGHT PHASE - NORTH 1 METERING AND
SPACING AREA
CREWMEMBER - PILOT

OCT 19, 1978

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
LMNT55	UNITED 76 CROSSES NORTH1 INTSCN < 170		
TKACHG	170KTS AND 8000 HEADING CHANGE PROC TO DEVIATE FROM 20 FLIGHT PATH		
2H 19	ROTATE TKA SEL KNOB	2.500	
2K 47	MON TRACK ANGLE SYM	2.200	
2K 17	MON EHSI DISPLAY	2.200	
2H 17	MON TKA SEL MODE LT BLUE - TKA SEL MODE PRESELECTED	0.771	
2H 14	PRESS TKA SEL MODE SW	1.410	
2H 15	MON TKA SEL MODE LT GREEN - TKA SEL MODE ENGAGED	0.781	
2H 38	MON HOR PATH MODE LT DARK - HOR PATH MODE DISENGAGED	0.781	
3H 07	MON ALTIMETER	5.00	<input type="checkbox"/>
2K 59	MON CURVED TREND VECTOR SYMBOLS	5.00	<input type="checkbox"/>
3A 10	MONITOR AIRSPEED INDIC	5.00	<input type="checkbox"/>
2J 42	MON EADI	5.00	<input type="checkbox"/>
2K 16	MON EHSI DISPLAY	2.270	<input type="checkbox"/>
ISP605	FLIGHT INSTRUMENT SCAN - F		
3A 10	MONITOR AIRSPEED INDIC	60.00	<input type="checkbox"/>
2K 15	MON EHSI DISPLAY	60.00	<input type="checkbox"/>
2J 42	MON EADI	60.00	<input type="checkbox"/>
3L 02	MON VERTICAL SPEED INDIC	60.00	<input type="checkbox"/>
LMNT10	RECEIVE INST TO FLY DIRECT ALTURA		

760. 810. 860. 910. 960. 1010. 1060.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1PLMNT21	MSG- UNITED76 FLY DIRECT TO ALTURA	3.00	□
TKACHG	HEADING CHANGE PROC TO DEVIATE FROM 2D FLIGHT PATH		▽
2H 19	ROTATE TKA SEL KNOB	2.50	□
2K 17	MON EHSI DISPLAY	2.20	□
2K 47	MON TRACK ANGLE SYM	2.20	□
2H 17	MON TKA SEL MODE LT BLUE - TKA SEL MODE PRESELECTED	0.77	!
2H 14	PRESS TKA SEL MODE SW	1.41	!
2H 38	MON HOR PATH MODE LT DARK - HOR PATH MODE DISENGAGED	0.78	!
2H 15	MON TKA SEL MODE LT GREEN - TKA SEL MODE ENGAGED	0.78	!
3H 07	MON ALTIMETER	5.00	□
2K 59	MON CURVED TREND VECTOR SYMBOLS	5.00	□
3A 10	MONITOR AIRSPEED INDIC	5.00	□
2K 16	MON EHSI DISPLAY	2.27	□
2J 42	MON EADI	5.00	□
ISP605	FLIGHT INSTRUMENT SCAN - F		▽
3L 02	MON VERTICAL SPEED INDIC	60.00	▬
3A 10	MONITOR AIRSPEED INDIC	60.00	▬
2K 15	MON EHSI DISPLAY	60.00	▬
2J 42	MON EADI	60.00	▬
ISP105	FLIGHT INSTRUMENT SCAN - B		▽
3A 10	MONITOR AIRSPEED INDIC	10.00	□
2K 14	MON EHSI DISPLAY	10.00	□
2J 42	MON EADI	10.00	□
3L 02	MON VERTICAL SPEED INDIC	10.00	□
LMNT11	RECEIVE INST TO FLY DIRECT TO GATE		▽
1PLMNT23	MSG- UNITED76 FLY DIRECT TO APPROACH GATE	3.50	□

760. 810. 860. 910. 960. 1010. 1060.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
TKACHG	HEADING CHANGE PROC TO DEVIATE FROM 2D FLIGHT PATH		▽
2H 19	ROTATE TKA SEL KNOB	2.50	0
2K 17	MON EHSI DISPLAY	2.20	0
2K 47	MON TRACK ANGLE SYM	2.20	0
2H 17	MON TKA SEL MODE LT	0.77	1
	BLUE - TKA SEL MODE PRESELECTED		
2H 14	PRESS TKA SEL MODE	1.41	1
2H 30	SH MON HOR PATH MODE LT	0.70	1
	DARK - HOR PATH MODE DISENGAGED		
2H 15	MON TKA SEL MODE LT	0.70	1
	GREEN - TKA SEL MODE ENGAGED		
2K 59	MON CURVED TREND VECTOR SYMBOLS	5.00	0
3A 10	MONITOR AIRSPEED INDIC	5.00	0
3H 07	MON ALTIMETER	5.00	0
2K 16	MON EHSI DISPLAY	2.27	0
2J 42	MON EADI	5.00	0
ALT2CH	ALTITUDE CHANGE PROC FOR 2D FLIGHT PATH		▽
2H 31	MON ALT ENG MODE LT	0.70	1
	BLUE - ALT ENG MODE PRESELECTED		
2H 33	ROTATE ALT ENG KNOB	2.47	0
2H 34	READ ALT ENG VALUE ON DIGITAL INDIC	1.06	1
2H 20	PRESS ALT ENG MODE S	1.42	0
	SH		
2H 30	MON ALT ENG MODE LT	0.70	1
	ORANGE - ALT ENG MODE ARMED		
2H 26	ROTATE FPA SEL KNOB	2.45	0
2K 32	MON ALT/RNG SYMBOLS	2.00	0
2H 21	PRESS FPA SEL MODE	1.40	1
	SH		
3A 01	MONITOR INDICATED AIRSPEED INDIC	0.60	1
3L 05	MON IVSI	0.60	1
3H 02	MON CORR BARO ALT INDIC	0.60	1

760. 810. 860. 910. 960. 1010. 1060.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
ISP605	FLIGHT INSTRUMENT SCAN - F		▽
9A 10	MONITOR AIRSPEED INDIC	60.00	=====
2K 15	MON EHSI DISPLAY	60.00	=====
2J 42	MON EADI	60.00	=====
3L 02	MON VERTICAL SPEED INDIC	60.00	=====
140023	REPORT 1000 FT TO LEVEL OFF		▽
1P 11	MON VERBAL REPORT	1.70	0
ALTCPT	PILOT MONITORS EADI- EHSI SYMBOLS FOR ALTITUDE CAPTURE		▽

760. 810. 860. 910. 960. 1010. 1060.

UNSHIFTED


























MISSION TIMELINE
 MISSION - DENVER LMNT20 APP/LN
 WITH HOLDING PTN -
 CONFIGURATION - AFD SIM DATA
 FLIGHT PHASE - FINAL APP TO LANDING
 FOR LONGMONT

OCT 19, 1978

CREWMEMBER - PILOT

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
LMNT56	U 76 CROSSES GATE		▽
	SETS FLAPS TO 25		
LMNT12	SLOWS TO APRCH SPD		▽
	RECEIVE INST TO SLOW		
	TO APRCH SPEED AND		
LNDARM	CALL TOWER AT O.M.		▽
	PILOT ARMS AUTOLAND		
	FEATURE ON CMP		
1PLMNT25	MSG- UNITED76 REDUCE	5.50	□
	TO APPROACH SPEED		
	CONTACT TWR AT O.M.		
	ON120.0		
2K 17	MON EHSI DISPLAY	2.20	0
2H 36	MON HOR PATH MODE LT	0.70	I
	GREEN - HOR PATH		
	MODE ENGAGED		
2H 35	PRESS HOR PATH MODE	1.72	0
	SW		
2H 38	MON HOR PATH MODE LT	0.70	I
	DARK - HOR PATH MODE		
	DISENGAGED		
2H 10	PRESS LAND MODE SW	2.13	0
2H 13	MON LAND MODE LT	1.05	I
	DARK - LAND MODE		
	DISENGAGED		
ISP055	FLIGHT INSTRUMENT		▽
	SCAN - A		
2K 16	MON EHSI DISPLAY	5.00	□
2J 42	MON EADI	5.00	□
3L 02	MON VERTICAL SPEED	5.00	□
	INDIC		
3A 10	MONITOR AIRSPEED	5.00	□
	INDIC		
ISP305	FLIGHT INSTRUMENT		▽
	SCAN - E		
2J 42	MON EADI	30.00	□

990. 1040. 1090. 1140. 1190. 1240. 1290.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
3L 02	MON VERTICAL SPEED INDIC	30.00	
3A 10	MONITOR AIRSPEED INDIC	30.00	
2K 14 160053	MON EHSI DISPLAY SET FLAPS TO FLAPS 25	30.00	
160010	FLAP SET PROCEDURE		
1P160070	CALL OUT -[FLAPS 25]	0.70	
1P 10	MON VERBAL REPORT	0.70	
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 30	MON ENG NO 2 EPR IND	0.44	
LNDCLR	CONTACT TOWER FOR FINAL LANDING CLEARANCE		
ISP105	FLIGHT INSTRUMENT SCAN - 0		
2J 42	MON EADI	10.00	
3L 02	MON VERTICAL SPEED INDIC	10.00	
3A 10	MONITOR AIRSPEED INDIC	10.00	
2K 14	MON EHSI DISPLAY	10.00	
1B 19	MON VHF-2 COMM AUDIO	7.00	
1PLNDCL4	MON RADIO COMM - [UNITED 24, DENVER TOWER, ROGER, CLEAR TO LAND RUNWAY TWO SIX, WIND TWO ONE ZERO DEGREES AT ZERO NINER.]	4.00	
1PLNDCL5	UNITED 24, DENVER TOWER, ROGER, CLEAR TO LAND RUNWAY TWO SIX, WIND TWO ONE ZERO DEGREES AT ZERO NINER.]	3.00	
LMNT57	UNITED 76 CROSSES O.M. SETS FLAPS 40		
LNDCLR	CONTACT TOWER FOR FINAL LANDING CLEARANCE		
ISP105	FLIGHT INSTRUMENT SCAN - 0		
3L 02	MON VERTICAL SPEED INDIC	10.00	
3A 10	MONITOR AIRSPEED INDIC	10.00	
2K 14	MON EHSI DISPLAY	10.00	
2J 42	MON EADI	10.00	
160059	CROSS RHY XX OUTER MARKER		

990. 1040. 1090. 1140. 1190. 1240. 1290.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
160057	SET FLAPS TO FLAPS 40		▽
160018	FLAP SET PROCEDURE		▽
ATOLN6	MONITOR A/C ON FINAL APPROACH - PILOT (60 SEC)		▽
3H 06	MON ALTIMETER	60.00	
3L 02	MON VERTICAL SPEED INDIC	60.00	
3V 11	MONITOR OUTER MARKER LT ON AND AUDIBLE SIGNAL	0.72	I
3N 03	START ELAPSED TIME INDIC	2.10	0
3V 06	MON LOC ANNUN LT GREEN	1.21	I
3V 09	MON GLIDE SLOPE ANNUN LT GREEN	1.21	I
1P160073	CALL OUT - (FLAPS 40)	0.70	I
2J 04	MON FLT PATH ACCEL INDIC	60.00	
2J 09	MON FLT PATH ANGLE INDIC	60.00	
2J 38	MONITOR LOCALIZER INDICATOR	60.00	
2J 39	MON GLIDE SLOPE ATT INDIC	60.00	
2J 30	MON SPD ERR BAR	60.00	
2J 40	MON EADI RNWY	60.00	
3A 10	MONITOR AIRSPEED INDIC	60.00	
1B 19	MON VHF-2 COMM AUDIO	7.00	□
1P160075	CALL OUT - (GEAR DOWN AND LANDING CHECK-LIST)	1.00	0
1PLNDCL4	MON RADIO COMM - (UNITED 24, DENVER TOWER, ROGER. CLEAR TO LAND RUNWAY TWO SIX, WIND TWO ONE ZERO DEGREES AT ZERO NINER.)	4.00	□
1PLNDCL5	MON VERBAL REPORT	3.00	0
1P 10	MON ENG NO 1 EPR IND	0.70	I
7F 25	MON ENG NO 2 EPR IND	0.44	I
7F 30		0.44	I

990. 1040. 1090. 1140. 1190. 1240. 1290.

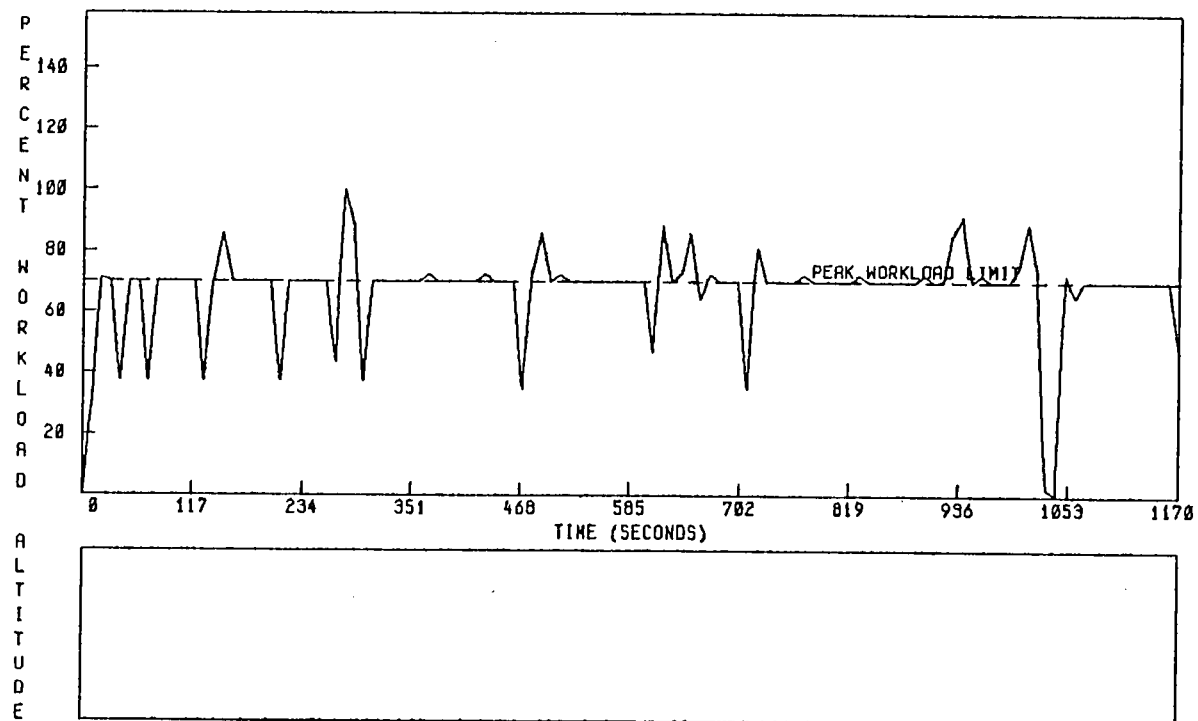
CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
ATOLN3	MONITOR A/C ON FINAL APPROACH - PILOT (30 SEC)		▽
3H 06	MON ALTIMETER	30.00	=====
3L 02	MON VERTICAL SPEED INDIC	30.00	=====
2J 04	MON FLT PATH ACCEL INDIC	10.00	=====
2J 05	MON FLT PATH ANGLE INDIC	30.00	=====
2J 38	MONITOR LOCALIZER INDICATOR	30.00	=====
2J 39	MON GLIDE SLOPE ATT INDIC	30.00	=====
2J 30	MON SPD ERR BAR	30.00	=====
2J 40	MON EADI RNWY	30.00	=====
3A 10	MONITOR AIRSPEED INDIC	30.00	=====
ATOLND	MONITOR AIRCRAFT ON FINAL APP		▽
2J 09	MON FLT PATH ANGLE INDIC	26.00	=====
2J 44	MON EADI RNWY	26.00	=====
2J 24	MON 100 FT INDIC ON EADI	2.27	=====
2J 41	MON EADI DRIFT INDIC	10.00	=====
4B 00	SET THRUST LEVERS TO IDLE	2.50	=====
3V 28	MON FLARE LT ON ANUN PANEL - GREEN	1.21	=====
160065	DESCEND THRU -DECISION HEIGHT		▽
1P 11	MON VERBAL REPORT	0.00	=====

990. 1040. 1090. 1140. 1190. 1240. 1290.

UNSHIFTED
OCT 19, 1978

WORKLOAD HISTOGRAM
CREWMEMBER- COPILOT
CHANNEL- TOTAL VISION
CONFIGURATION- AFD SIM DATA

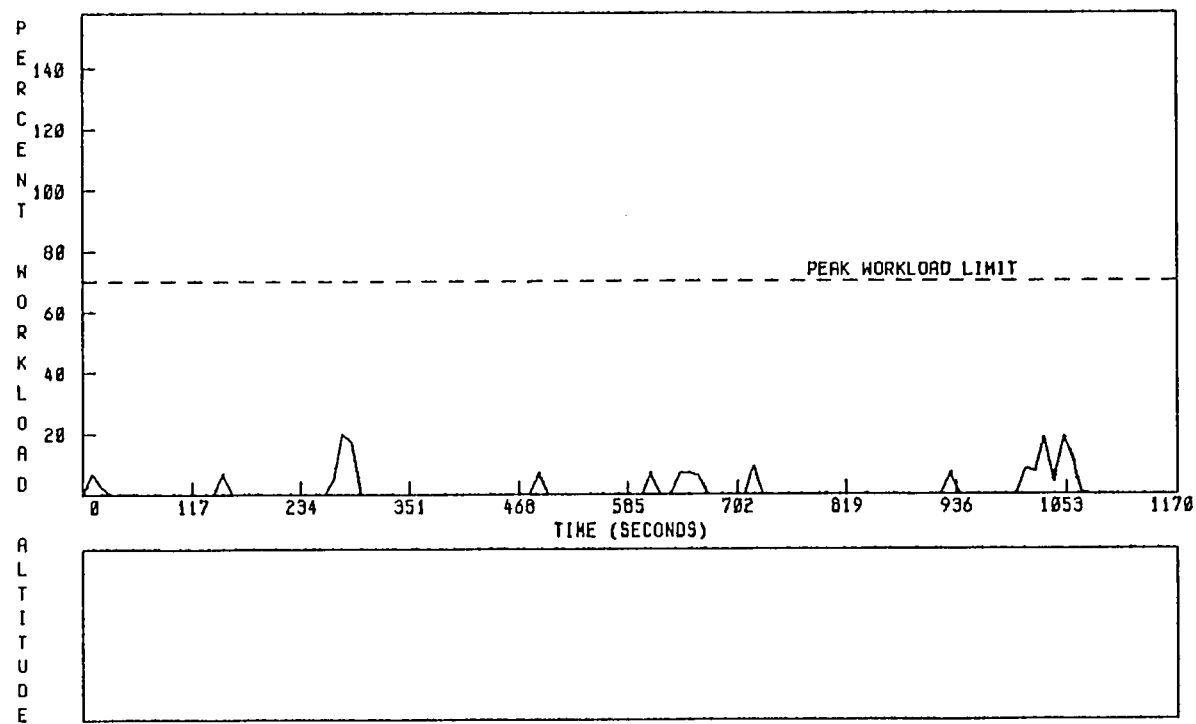
MISSION
DENVER LMNT20 APP/LN
WITH HOLDING PTN -



UNSHIFTED
OCT 19, 1978

WORKLOAD HISTOGRAM
CREWMEMBER- COPILOT
CHANNEL- TOTAL MOTOR
CONFIGURATION- AFD SIM DATA

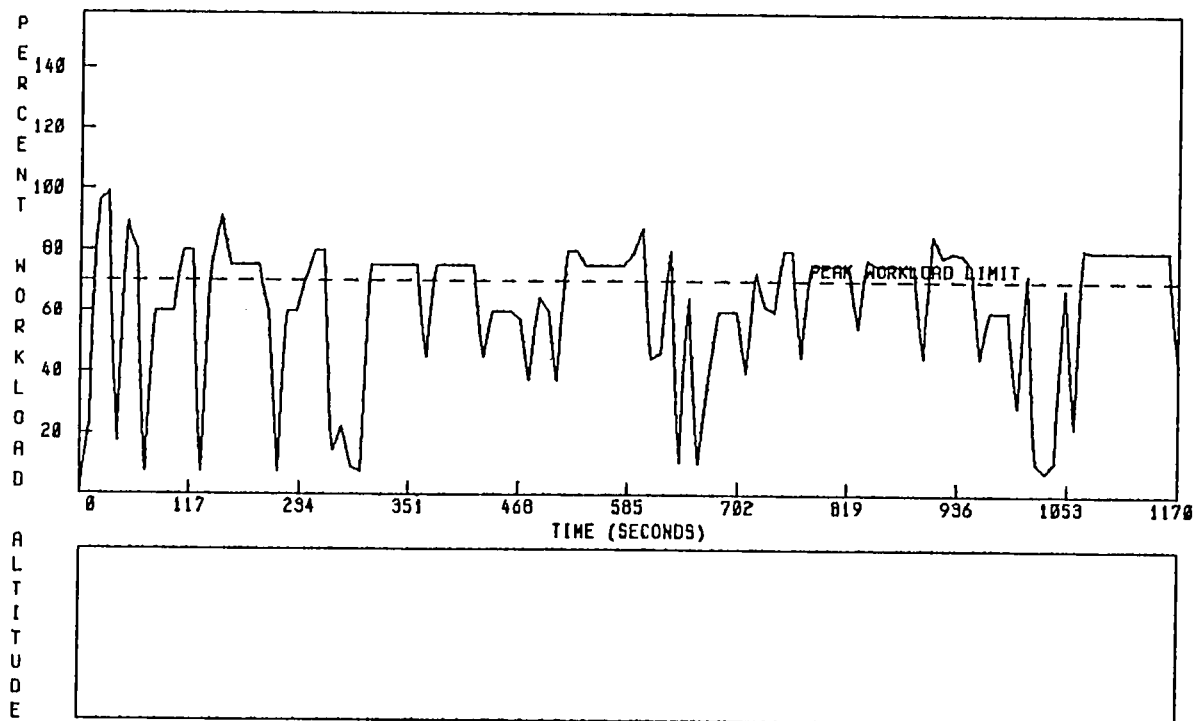
MISSION
DENVER LMNT20 APP/LN
WITH HOLDING PTN -



UNSHIFTED
OCT 19, 1978

WORKLOAD HISTOGRAM
CREWMEMBER- COPILOT
CHANNEL- COGNITION
CONFIGURATION- AFD 31M DATA

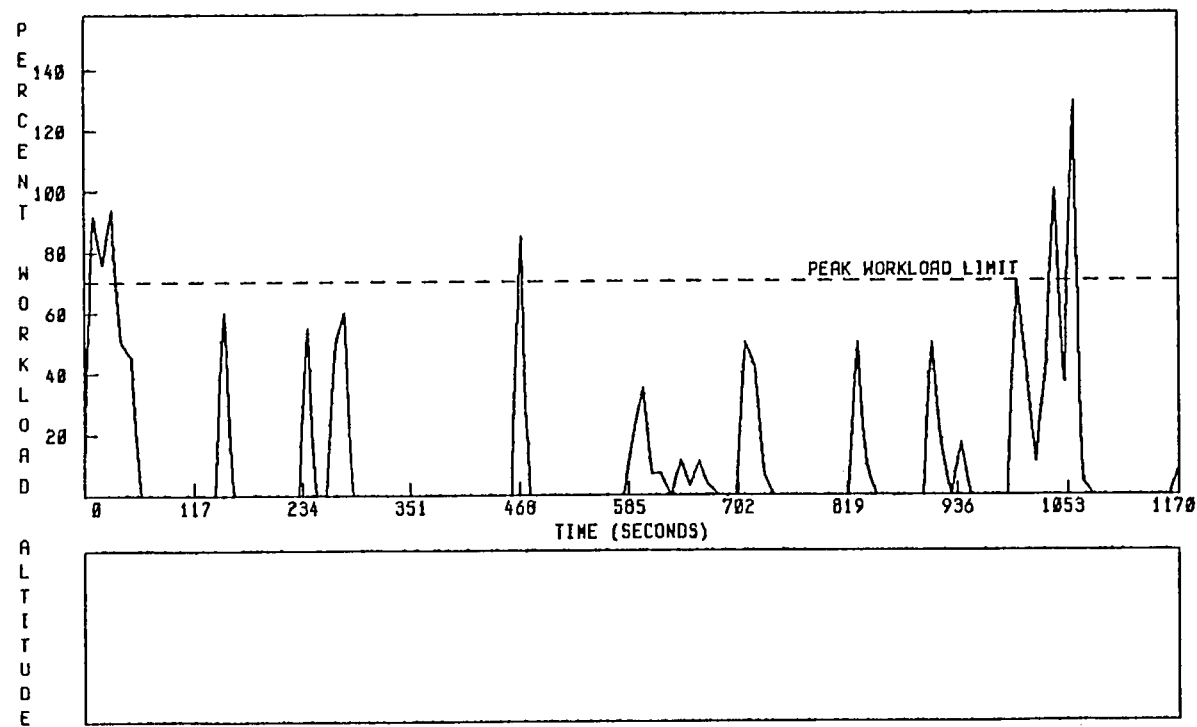
MISSION
DENVER LMNT20 APP/LN
WITH HOLDING PTIN -



UNSHIFTED
OCT 19, 1978

WORKLOAD HISTOGRAM
CREWMEMBER- COPILOT
CHANNEL- TOTAL COMMUNICATION
CONFIGURATION- AFD SIM DATA

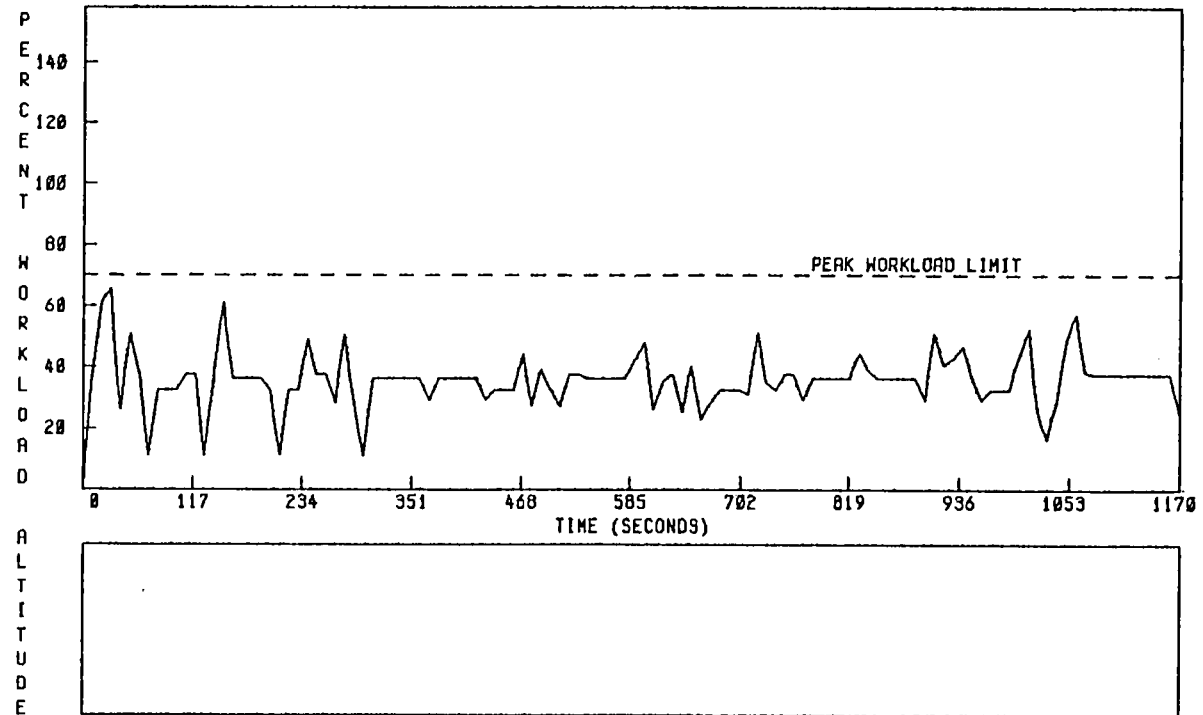
MISSION
DENVER LMNT20 APP/LN
WITH HOLDING PTN -



UNSHIFTED
OCT 19, 1978

WORKLOAD HISTOGRAM
CREWMEMBER- COPILOT
CHANNEL- WEIGHTED CHANNEL AVERAGE
CONFIGURATION- AFD SIM DATA

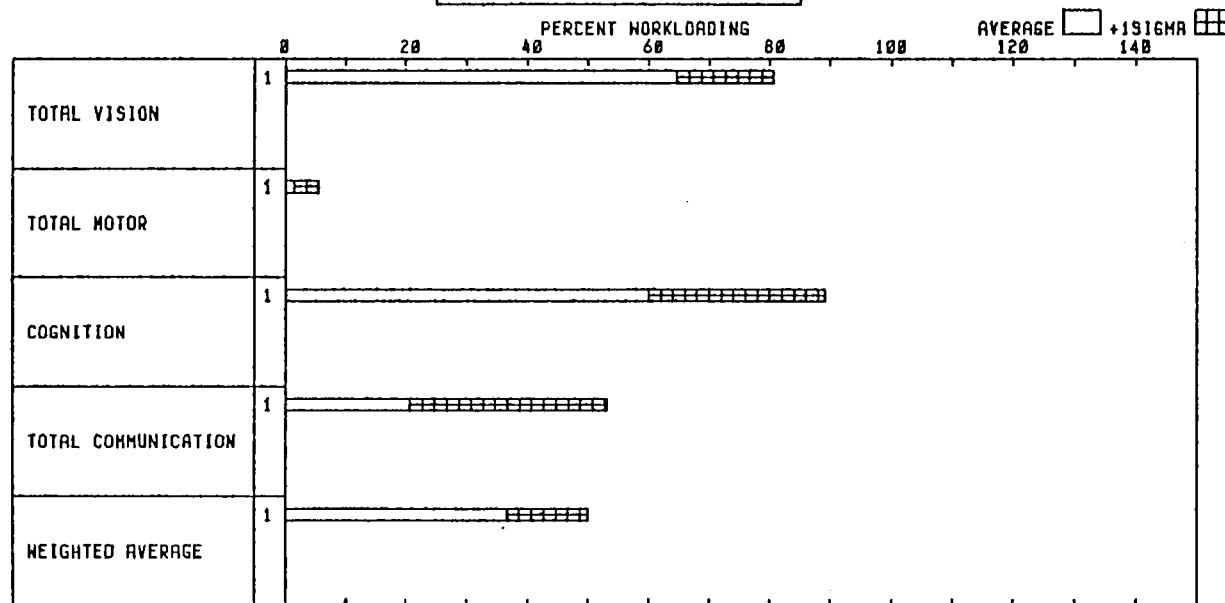
MISSION
DENVER LMNT2D APP/LN
WITH HOLDING PTN -



UNSHIFTED

WORKLOAD SUMMARY CREWMEMBER - COPILOT

OCT 19, 1978



MISSION
1 DENVER LMNT2D APP/LN
WITH HOLDING PTTN -

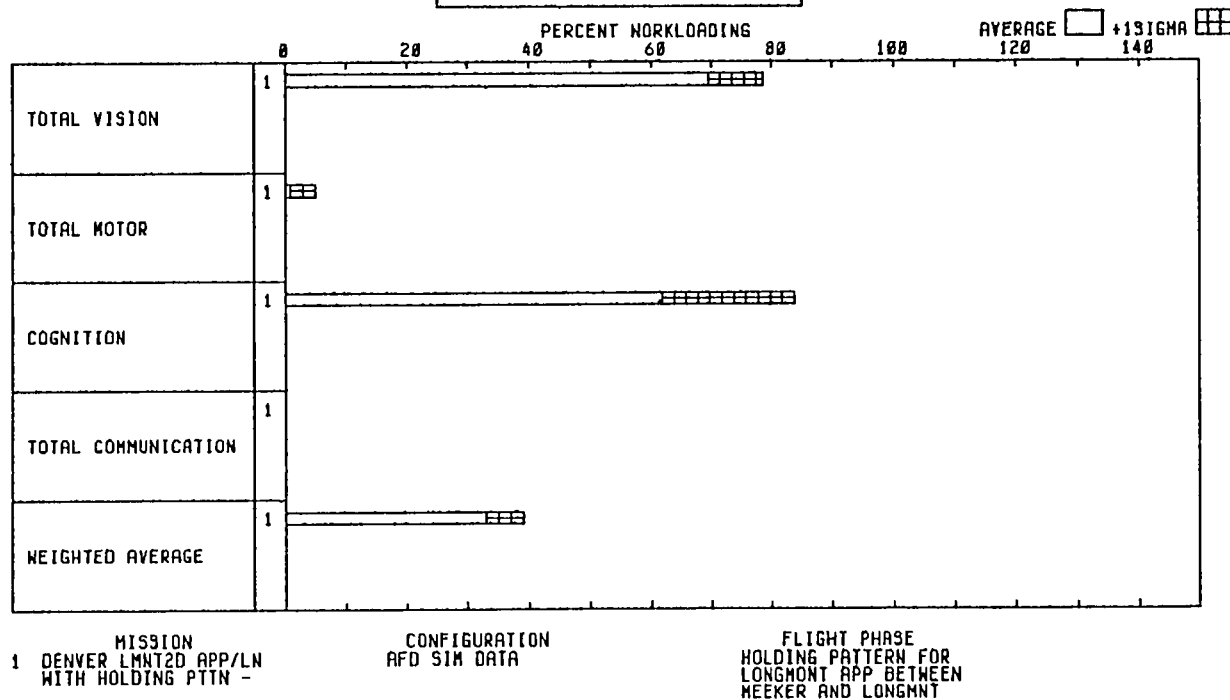
CONFIGURATION
AFD SIM DATA

FLIGHT PHASE
LONGMONT APPROACH TO
LANDING WITH HOLDING
PATTERN

UNSHIFTED

WORKLOAD SUMMARY
CREWMEMBER - COPILOT

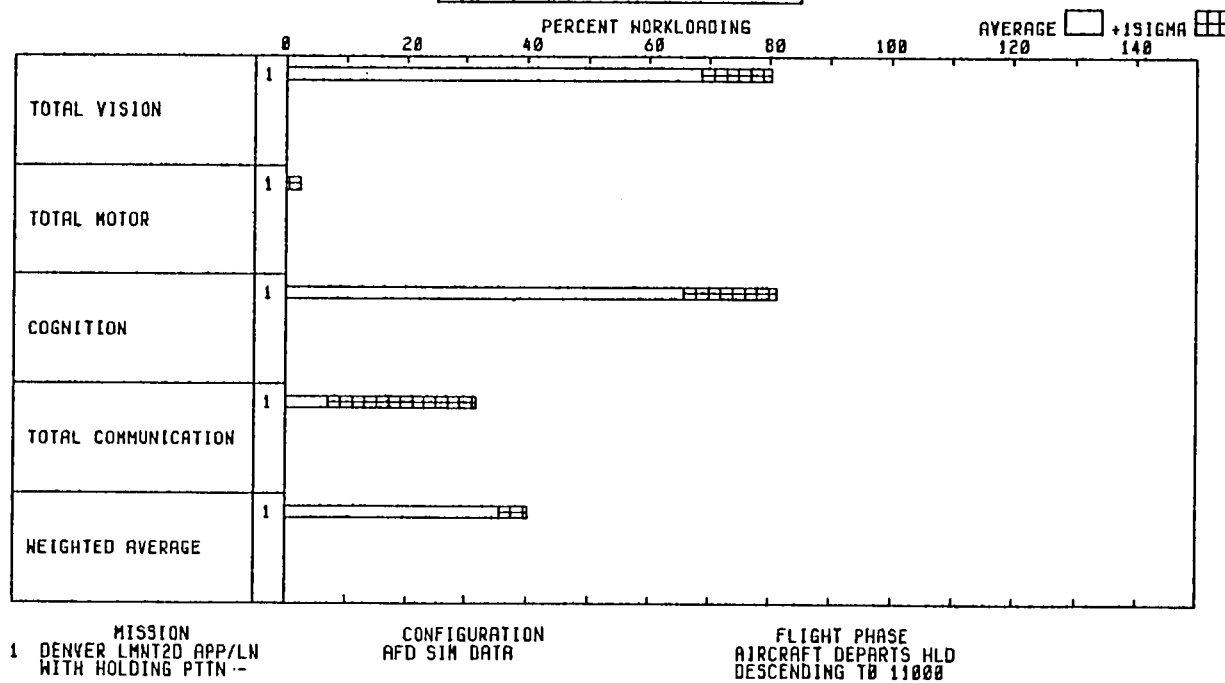
OCT 19, 1978



UNSHIFTED

WORKLOAD SUMMARY CREWMEMBER - COPILOT

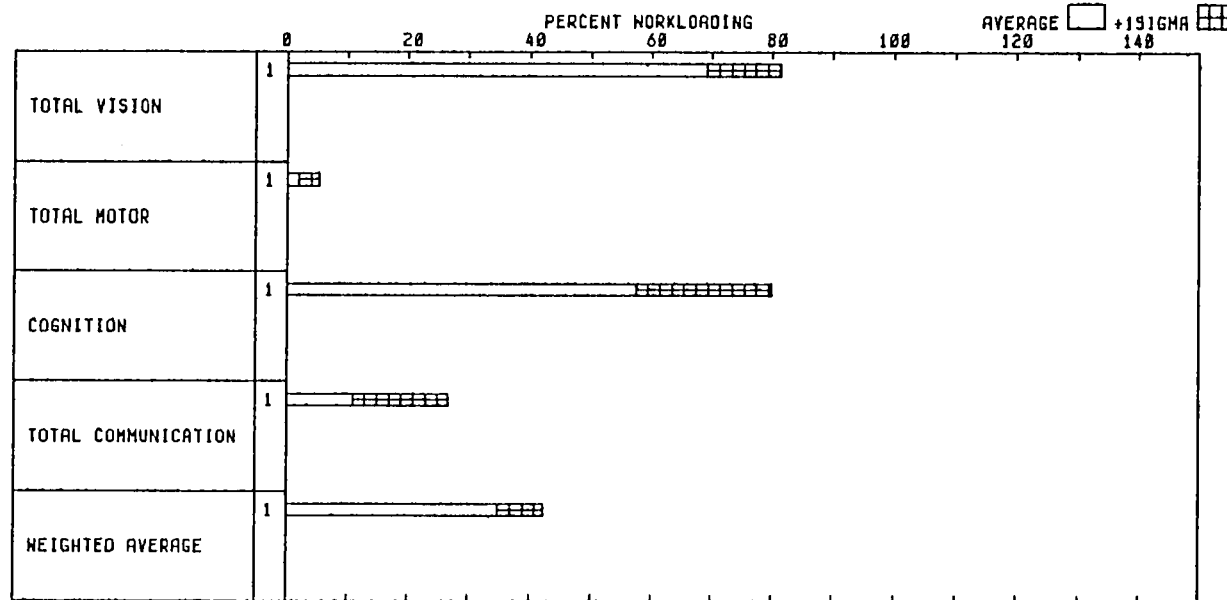
OCT 19, 1978



UNSHIFTED

WORKLOAD SUMMARY
CREWMEMBER - COPILOT

OCT 19, 1978



MISSION
1 DENVER LMNT20 APP/LN
WITH HOLDING PTN -

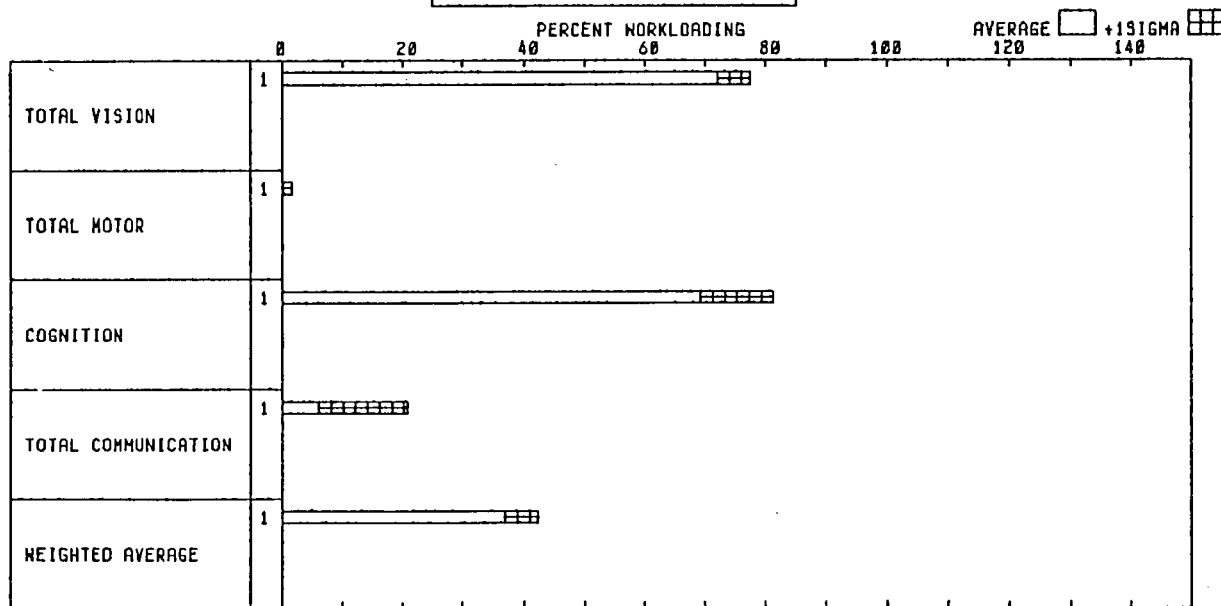
CONFIGURATION
AFD SIM DATA

FLIGHT PHASE
AIRCRAFT DESCENDS
TO 8000 AND SLOWS
TO 170 KTS

UNSHIFTED

WORKLOAD SUMMARY
CREWMEMBER - COPILOT

OCT 19, 1978



MISSION
1 DENVER LMT2D APP/LN
WITH HOLDING PTTN -

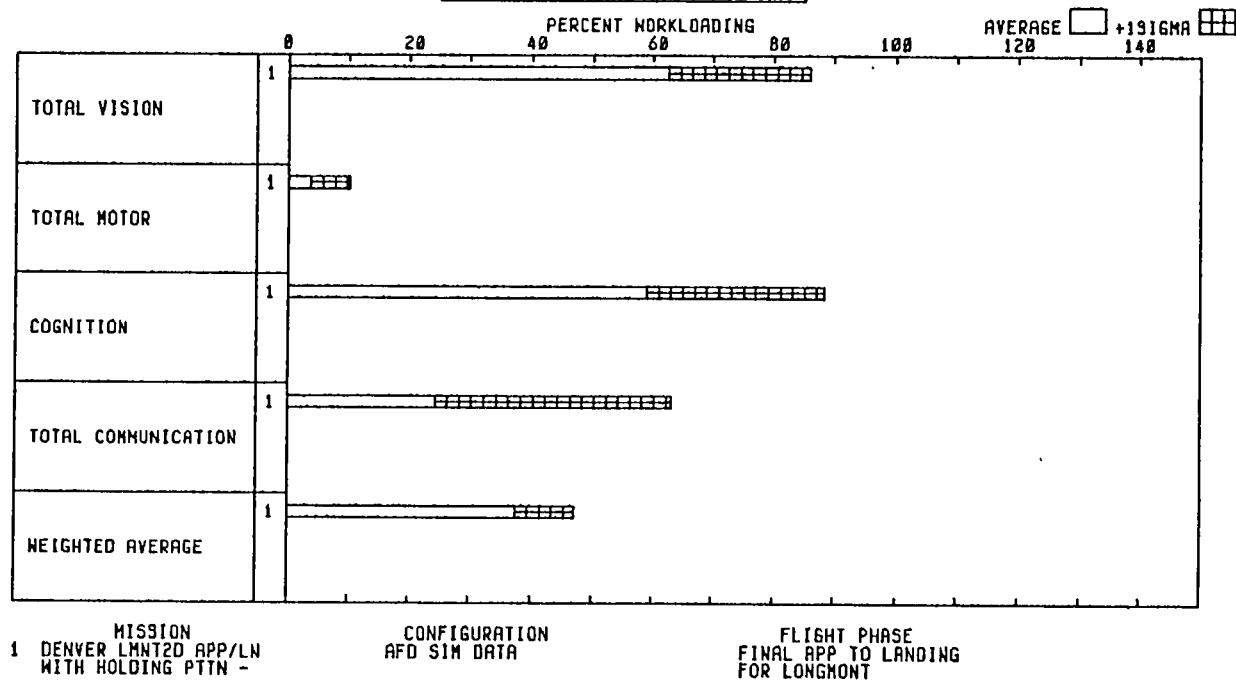
CONFIGURATION
AFD SIM DATA

FLIGHT PHASE
NORTH 1 METERING AND
SPACING AREA

UNSHIFTED

WORKLOAD SUMMARY
CREWMEMBER - COPILOT

OCT 19, 1978



UNSHIFTED

MISSION TIMELINE
 MISSION - DENVER LMNT20 APP/LN
 WITH HOLDING PTN -
 CONFIGURATION - AFD SIM DATA
 FLIGHT PHASE - LONGMONT APPROACH TO
 LANDING WITH HOLDING
 PATTERN
 CREWMEMBER - COPILOT

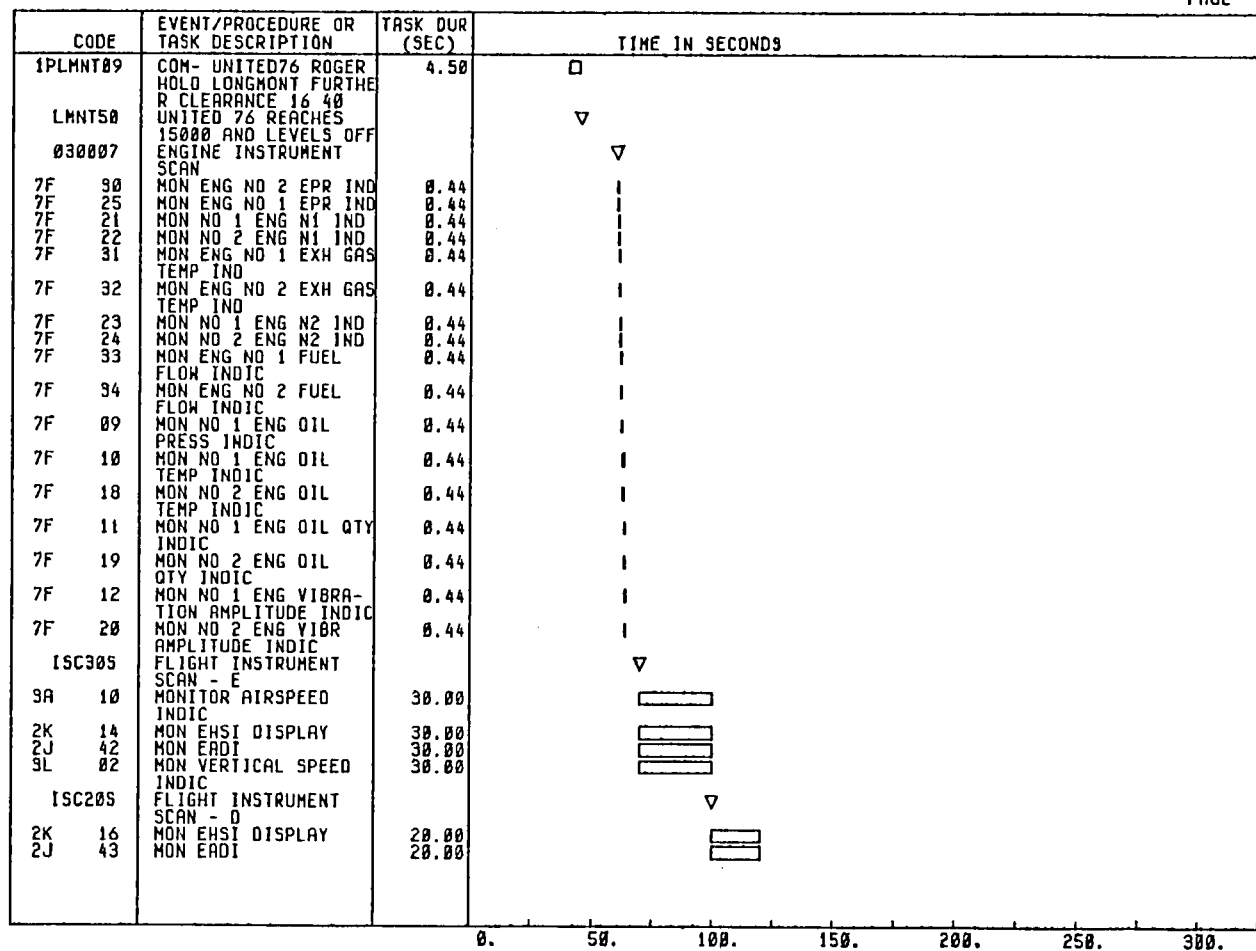
OCT 19, 1978

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
LMNT01 140023	START OF FLIGHT COM REPORT 1000 FT TO LEVEL OFF		▽
1PLMNT01	MSG- UNITED 76, CON- TACT DENVER APRCH CNTRL ON 128.05	4.50	□
3H 02	MON CORR BARO ALT INDIC	2.13	□
1P140045	CALL OUT - (1000 FEET TO LEVEL OFF)	1.70	□
1PLMNT02	COM- UNITED 76, ROGER - DENVER APRCH 12805	3.00	□
1R 07	MON VHF-2R FREQ IND	0.77	□
1R 08	SET VHF-2R FREQ- WHOLE NO. 5	2.03	□
1R 09	SET VHF-2R FREQ- FRACTIONS	1.58	□
15C205	FLIGHT INSTRUMENT SCAN - 0		▽
3A 14	MON AIRSPEED INDIC	20.00	□
2K 16	MON EHST DISPLAY	20.00	□
2J 43	MON EADI	20.00	□
3L 04	MON IVSI INDIC	20.00	□
1PLMNT03	COM- DENVER APRCH UNITED 76	3.00	□
1PLMNT04	MSG- UNITED 76, DENVER - PROCEED TO LONGMONT DESCEND MAINTAIN 16000	5.00	□
1PLMNT05	COM- UNITED 76 ROGER OUT OF 17-5 FOR 16000	3.00	□
LMNT02	DESCENT INSTRUCTIONS TO 15000		▽
1PLMNT06	MSG- UNITED 76 DSCND MAINTAIN 15000	3.00	□

0. 50. 100. 150. 200. 250. 300.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1PLMNT07	COM- UNITED76 ROGER	3.00	0
030007	DESCEND TO 15000		▽
	ENGINE INSTRUMENT SCAN		
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 30	MON ENG NO 2 EPR IND	0.44	I
7F 22	MON NO 2 ENG N1 IND	0.44	I
7F 21	MON NO 1 ENG N1 IND	0.44	I
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	I
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	I
7F 24	MON NO 2 ENG N2 IND	0.44	I
7F 23	MON NO 1 ENG N2 IND	0.44	I
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	I
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	I
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	I
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	I
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	I
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	I
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	I
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	I
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	I
LMNT03	RECEIVE HOLDING PTN INSTRUCTIONS		▽
1PLMNT08	MSG- UNITED76 HOLD AT LONGMOUNT, EXPECT FURTHER CLEARANCE AT 16 40	5.00	□
ALTCPT	PILOT MONITORS EADI-ESHI SYMBOLS FOR ALTITUDE CAPTURE		▽
ISC209	FLIGHT INSTRUMENT SCAN - 0		▽
2J 43	MON EADI	20.00	▬
3L 04	MON IVSI INDIC	20.00	▬
9A 14	MON AIRSPEED INDIC	20.00	▬
2K 16	MON EHSI DISPLAY	20.00	▬

0. 50. 100. 150. 200. 250. 300.

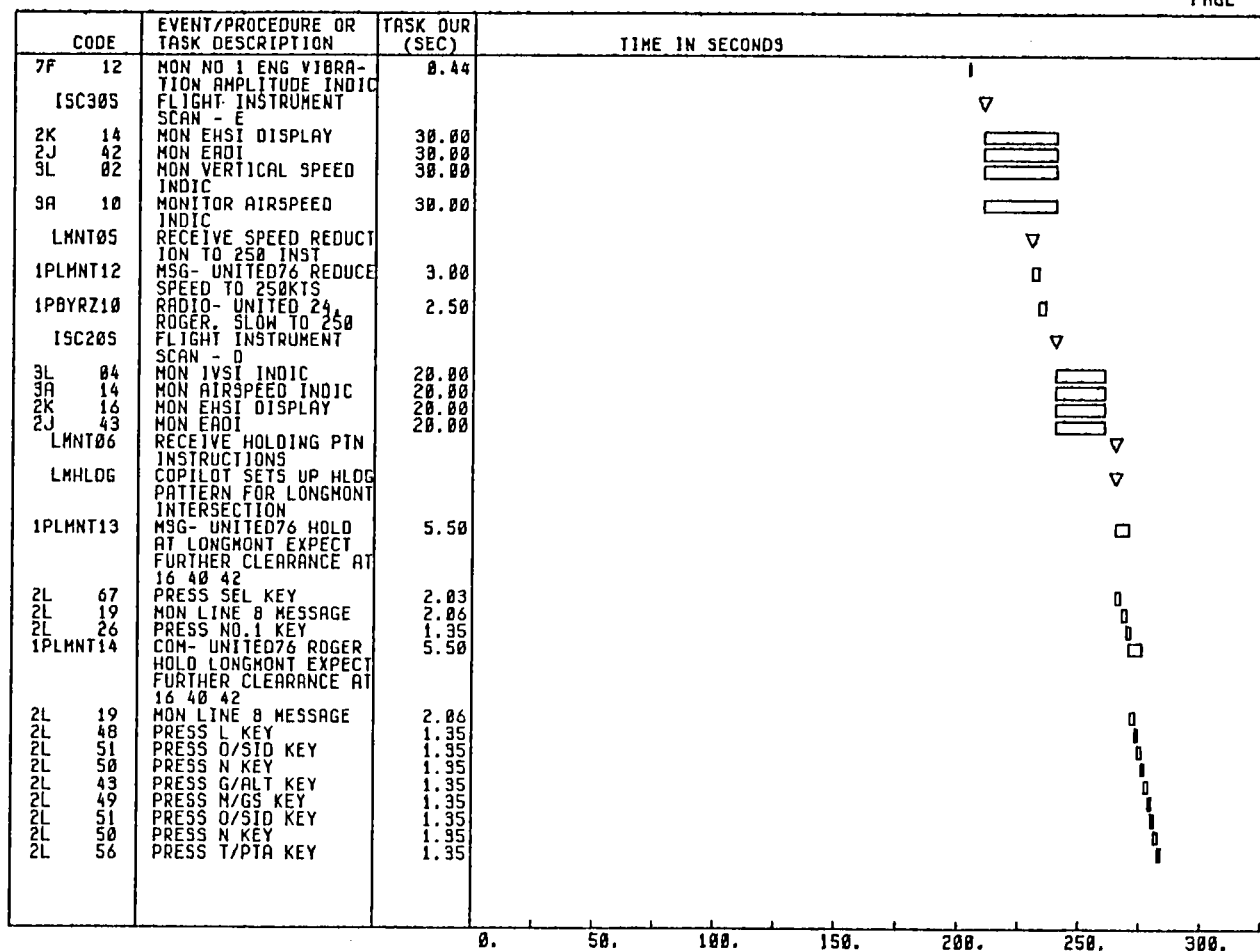


CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
9L 04	MON 1VST INDIC	20.00	
3A 14	MON AIRSPEED INDIC	20.00	
030007	ENGINE INSTRUMENT SCAN		
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
15C605	FLIGHT INSTRUMENT SCAN - F		
9L 02	MON VERTICAL SPEED INDIC	60.00	
3A 10	MONITOR AIRSPEED INDIC	60.00	
2K 15	MON EHSI DISPLAY	60.00	
2J 42	MON EADI	60.00	
LMNT04	DESCENT INSTRUCTIONS TO 14000		
ALT2CH	ALTITUDE CHANGE PROC FOR 20 FLIGHT PATH		
9K 04	MON ALT ALERT BARD SET INDIC	0.76	

0. 50. 100. 150. 200. 250. 300.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1PLMNT10	MSG- UNITED76 DSCND MAINTAIN 14000	3.00	0
3K 03	SET ALT ALERT BARO	2.72	0
1PLMNT11	CON- UNITED76 ROGER CLEARED TO 14000	3.00	0
2H 22	MONITOR FPA SEL MODE LT GREEN - FPA SEL MODE ENGAGED	0.77	1
ALTCPT	PILOT MONITORS EADI- ESHI SYMBOLS FOR ALTITUDE CAPTURE		▽
ISC105	FLIGHT INSTRUMENT SCAN - B		▽
2J 42	MON EADI	10.00	□
9L 02	MON VERTICAL SPEED INDIC	10.00	□
9A 10	MONITOR AIRSPEED INDIC	10.00	□
2K 14 030007	MON EHSI DISPLAY ENGINE INSTRUMENT SCAN	10.00	□
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	

0. 50. 100. 150. 200. 250. 300.



CODE		EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS	
2L	19	MON LINE 8 MESSAGE	2.86		0
2L	23	PRESS CLR KEY	1.35		0
2L	21	PRESS EXEC KEY	1.46		0
				0.	50.
				100.	150.
				200.	250.
				300.	





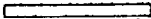

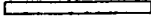

UNSHIFTED

MISSION TIMELINE
 MISSION - DENVER LMNT2D APP/LN
 WITH HOLDING PTN -
 CONFIGURATION - RFD SIM DATA
 FLIGHT PHASE - HOLDING PATTERN FOR
 LONGMONT APP BETWEEN
 MEEKER AND LONGMNT
 CREWMEMBER - COPILOT

OCT 19, 1978

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
LMNT51	UNITED 76 CROSSES LONGMONT INTSCTN AND ENTERS HLOG PTN AT 210KTS		▽
030007	ENGINE INSTRUMENT SCAN		▽
7F 30	MON ENG NO 2 EPR IND	0.44	I
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 21	MON NO 1 ENG N1 IND	0.44	I
7F 22	MON NO 2 ENG N1 IND	0.44	I
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	I
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	I
7F 23	MON NO 1 ENG N2 IND	0.44	I
7F 24	MON NO 2 ENG N2 IND	0.44	I
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	I
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	I
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	I
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	I
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	I
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	I
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	I
7F 12	MON NO 1 ENG VIBRA- TION AMPLITUDE INDIC	0.44	I
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	I
19C605	FLIGHT INSTRUMENT SCAN - F		▽

200. 330. 380. 430. 480. 530. 580.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
9A 10	MONITOR AIRSPEED INDIC	60.00	
2K 15	MON EHSI DISPLAY	60.00	
2J 42	MON EADI	60.00	
3L 02	MON VERTICAL SPEED INDIC	60.00	
030007	ENGINE INSTRUMENT SCAN		▽
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 10	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 12	MON NO 1 ENG VIBRA- TION AMPLITUDE INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
1SC60S	FLIGHT INSTRUMENT SCAN - F		▽
2J 42	MON EADI	60.00	
3L 02	MON VERTICAL SPEED INDIC	60.00	
3A 10	MONITOR AIRSPEED INDIC	60.00	
2K 15	MON EHSI DISPLAY	60.00	
030007	ENGINE INSTRUMENT SCAN		▽
7F 30	MON ENG NO 2 EPR IND	0.44	

280. 330. 380. 430. 480. 530. 580.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
7F 20	MON NO 2 ENG VIBRATION AMPLITUDE INDIC	0.44	
ISC05	FLIGHT INSTRUMENT SCAN - E		▽
3A 10	MONITOR AIRSPEED INDIC	30.00	▬
2K 14	MON EHSI DISPLAY	30.00	▬
2J 42	MON EADI	30.00	▬
3L 02	MON VERTICAL SPEED INDIC	30.00	▬
ISC05	FLIGHT INSTRUMENT SCAN - A		▽
2K 14	MON EHSI DISPLAY	5.00	□
2J 42	MON EADI	5.00	□
3L 02	MON VERTICAL SPEED INDIC	5.00	□
3A 10	MONITOR AIRSPEED INDIC	5.00	□

280. 330. 380. 430. 480. 530. 580.

UNSHIFTED

MISSION TIMELINE
 MISSION - DENVER LMNT2D APP/LN
 WITH HOLDING PTN -
 CONFIGURATION - AFD SIM DATA
 FLIGHT PHASE - AIRCRAFT DEPARTS HLD
 DESCENDING TO 11000
 CREWMEMBER - COPILOT

OCT 19, 1978

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
LMNT52	UNITED 76 DEPARTS HLOG PTN CONTINUING FLIGHT PATH		
LMNT07	RECEIVE DESCENT INST AND SPEED INCREASE		
1PLMNT15	MSG- UNITED76 INCRES SPEED TO 220KTS	4.50	
1PLMNT16	DESCND MAINTAIN 11000 COM- UNITED76 ROGER	4.00	
030007	DESCEND MAINTAIN 11000 SPEED 220 ENGINE INSTRUMENT SCAN		
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	

460. 480. 500. 520. 540. 560. 580.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	I
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	I
ISC905	FLIGHT INSTRUMENT SCAN - E		▽
2K 14	MON EHSI DISPLAY	30.00	=====
2J 42	MON EADI	30.00	=====
3L 02	MON VERTICAL SPEED INDIC	30.00	=====
3A 10	MONITOR AIRSPEED INDIC	30.00	=====
LMNT50	PILOT SETS HLD PTN SPEED ON CAS INDIC		▽
ALT2CH	ALTITUDE CHANGE PROC FOR 20 FLIGHT PATH		▽
9K 03	SET ALT ALERT BARD	2.72	□
9K 04	MON ALT ALERT BARD SET INDIC	0.76	0
2H 22	MONITOR FPA SEL MODE LT GREEN - FPA SEL MODE ENGAGED	0.77	0
030007	ENGINE INSTRUMENT SCAN		▽
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 30	MON ENG NO 2 EPR IND	0.44	I
7F 22	MON NO 2 ENG N1 IND	0.44	I
7F 21	MON NO 1 ENG N1 IND	0.44	I
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	I
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	I
7F 24	MON NO 2 ENG N2 IND	0.44	I
7F 23	MON NO 1 ENG N2 IND	0.44	I
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	I
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	I
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	I
7F 10	MON NO 2 ENG OIL TEMP INDIC	0.44	I
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	I
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	I

460. 480. 500. 520. 540. 560. 580.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	I
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	I
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	I
ISC205	FLIGHT INSTRUMENT SCAN - D		▽
2K 16	MON EHSI DISPLAY	20.00	
2J 43	MON EADI	20.00	
3L 04	MON IVSI INDIC	20.00	
3A 14	MON AIRSPEED INDIC	20.00	
ISC605	FLIGHT INSTRUMENT SCAN - F		▽
2J 42	MON EADI	60.00	
3L 02	MON VERTICAL SPEED INDIC	60.00	
3A 10	MONITOR AIRSPEED INDIC	60.00	
2K 15	MON EHSI DISPLAY	60.00	

460.

480.

500.

520.

540.

560.

580.

UNSHIFTED

MISSION - DENVER LMNT20 APP/LN
WITH HOLDING PTN -
CONFIGURATION - AFD SIM DATA
FLIGHT PHASE - AIRCRAFT DESCENDS
TO 8000 AND SLOWS
TO 170 KTS
CREWMEMBER - COPILOT

OCT 19, 1978

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
LMNT53	UNITED 76 CROSSES BRIGHTON INTSCN < 11000. LEVELS OFF AND SLOWS TO 170		▽
LMNT08	RECEIVE SPEED REDUCT ION INSTRUCTIONS-170		▽
1PLMNT17	MSG- UNITED76 REDUCE SPEED TO 1 KTS	3.00	□
ALTCPT	PILOT MONITORS EADI- ESHI SYMBOLS FOR ALTITUDE CAPTURE		▽
19C159	FLIGHT INSTRUMENT SCAN - C		▽
3A 14	MON AIRSPEED INDIC	15.00	▬
2K 16	MON EHSD DISPLAY	15.00	▬
2J 43	MON EADI	15.00	▬
3L 04	MON IVSI INDIC	15.00	▬
1PLMNT18	COM- UNITED76 ROGER SLOW TO 170	2.50	0
160011	SET FLAPS TO FLAPS 1		▽
1P 10	MON VERBAL REPORT	0.70	1
4E 07	SET FLAP CONT LEVER TO FLAPS 1	2.69	0
4E 15	MONITOR FLAP POSITION INDICATOR	2.23	0
4N 03	MON LE FLAPS-IN- TRANSIT LT ON	1.17	1
4N 04	MON LE FLAPS-IN- TRANSIT LT OFF	1.17	1
4E 16	CHECK FLAP LEVER AND POSITION INDIC AGREE	2.50	0
1P160058	CALL OUT - (FLAPS 1)	0.70	1
19C159	FLIGHT INSTRUMENT SCAN - C		▽
3L 04	MON IVSI INDIC	15.00	▬
3A 14	MON AIRSPEED INDIC	15.00	▬
2K 16	MON EHSD DISPLAY	15.00	▬










500. 600. 700. 800. 900.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
2J 43	MON EADI	15.00	
160017	SET FLAPS TO FLAPS 5		
160018	FLAP SET PROCEDURE		
1P 10	MON VERBAL REPORT	0.70	
4E 09	SET FLAP CONT LEVER TO FLAPS 5	2.69	
4N 03	MON LE FLAPS-IN- TRANSIT LT ON	1.17	
4E 15	MONITOR FLAP POSITION INDICATOR	2.23	
4E 16	CHECK FLAP LEVER AND POSITION INDIC AGREE	2.50	
4N 04	MON LE FLAPS-IN- TRANSIT LT OFF	1.17	
1P160061	CALL OUT -(FLAPS 5)	0.70	
ISC105	FLIGHT INSTRUMENT SCAN - B		
ALT2CH	ALTITUDE CHANGE PROC FOR 20 FLIGHT PATH		
3A 10	MONITOR AIRSPEED INDIC	10.00	
2K 14	MON EHSI DISPLAY	10.00	
3K 03	SET ALT ALERT BARO	2.72	
3K 04	MON ALT ALERT BARO SET INDIC	0.70	
2J 42	MON EADI	10.00	
3L 02	MON VERTICAL SPEED INDIC	10.00	
LMNT54	UNITED 76 REACHES 170KTS AND RESUMES DESCENT TO 8000		
2H 22	MONITOR FPA SEL MODE LT GREEN - FPA SEL MODE ENGAGED	0.77	
160025	SET FLAPS TO FLAPS 15		
160018	FLAP SET PROCEDURE		
1P 10	MON VERBAL REPORT	0.70	
4E 11	SET FLAP CONT LEVER TO FLAPS 15	2.46	
4E 15	MONITOR FLAP POSITION INDICATOR	2.23	
4N 03	MON LE FLAPS-IN- TRANSIT LT ON	1.17	
4E 16	CHECK FLAP LEVER AND POSITION INDIC AGREE	2.50	

500. 630. 680. 730. 780. 830. 880.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
4N 04	MON LE FLAPS-IN-TRANSIT LT OFF	1.17	I
1P160062 030007	CALL OUT - [FLAPS 15] ENGINE INSTRUMENT SCAN	0.70	I ▽
7F 30	MON ENG NO 2 EPR IND	0.44	I
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 21	MON NO 1 ENG N1 IND	0.44	I
7F 22	MON NO 2 ENG N1 IND	0.44	I
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	I
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	I
7F 23	MON NO 1 ENG N2 IND	0.44	I
7F 24	MON NO 2 ENG N2 IND	0.44	I
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	I
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	I
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	I
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	I
7F 10	MON NO 2 ENG OIL TEMP INDIC	0.44	I
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	I
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	I
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	I
7F 20	MON NO 2 ENG VIBRATION AMPLITUDE INDIC	0.44	I
ISC305	FLIGHT INSTRUMENT SCAN - E		▽
3A 10	MONITOR AIRSPEED INDIC	30.00	▬
2K 14	MON EHSI DISPLAY	30.00	▬
2J 42	MON EADI	30.00	▬
3L 02	MON VERTICAL SPEED INDIC	30.00	▬
ISC105	FLIGHT INSTRUMENT SCAN - B		▽
2K 14	MON EHSI DISPLAY	10.00	▬
2J 42	MON EADI	10.00	▬
3L 02	MON VERTICAL SPEED INDIC	10.00	▬

500. 630. 680. 730. 780. 830. 880.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
3A 10	MONITOR AIRSPEED INDIC	10.00	
LMNT09	CONTACT DENVER LCL CONTROL 118.3		▽
1PLMNT19	HSG- UNITED76 CONTACT DENVER LOCAL CONTROL ON 118.3	3.50	□
1PLMNT20	COM- UNITED76 ROGER CONTACT DENVER LOCAL 118.3	3.50	□
ISC305	FLIGHT INSTRUMENT SCAN - E		▽
3L 02	MON VERTICAL SPEED INDIC	30.00	
3A 10	MONITOR AIRSPEED INDIC	30.00	
2K 14	MON EHSI DISPLAY	30.00	
2J 42	MON EADI	30.00	
1R 07	MON VHF-2R FREQ IND	0.77	
1R 08	SET VHF-2R FREQ- WHOLE NO.5	2.03	
1R 09	SET VHF-2R FREQ- FRACTIONS	1.58	
1PLMNT03	COM- DENVER APRCH UNITED 76	3.00	□
ALTCPT	PILOT MONITORS EADI- ESHI SYMBOLS FOR ALTITUDE CAPTURE		▽
ISC205	FLIGHT INSTRUMENT SCAN - 0		▽
3A 14	MON AIRSPEED INDIC	20.00	
2K 16	MON EHSI DISPLAY	20.00	
2J 43	MON EADI	20.00	
3L 04	MON IYSI INDIC	20.00	

500. 600. 650. 700. 750. 800. 850.

UNSHIFTED

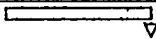


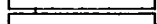





MISSION TIMELINE
MISSION - DENVER LMNT2D APP/LN
WITH HOLDING PTN -
CONFIGURATION - AFD SIM DATA
FLIGHT PHASE - NORTH 1 METERING AND
SPACING AREA
CREWMEMBER - COPILOT

OCT 19, 1978

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
LMNT55	UNITED 76 CROSSES NORTH1 INTSCTN < 170		
030007	170KTS AND 8000 ENGINE INSTRUMENT SCAN		
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 12	MON NO 1 ENG VIBRA- TION AMPLITUDE INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
ISC605	FLIGHT INSTRUMENT SCAN - F		
3A 10	MONITOR AIRSPEED INDIC	60.00	

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
2K 15	MON EHSDI DISPLAY	60.00	
2J 42	MON EADI	60.00	
3L 02	MON VERTICAL SPEED INDIC	60.00	
LMNT10	RECEIVE INST TO FLY DIRECT ALTURA		▽
030007	ENGINE INSTRUMENT SCAN		▽
1PLMNT21	MSG- UNITED76 FLY DIRECT TO ALTURA	3.00	□
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
1PLMNT22	COM- UNITED76 ROGER DIRECT TO ALTURA	3.00	□
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
7F 12	MON NO 1 ENG VIBRA- TION AMPLITUDE INDIC	0.44	
I9C605	FLIGHT INSTRUMENT SCAN - F		▽
3L 02	MON VERTICAL SPEED INDIC	60.00	
3A 10	MONITOR AIRSPEED INDIC	60.00	
2K 15	MON EHSDI DISPLAY	60.00	

760. 810. 860. 910. 960. 1010. 1060.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
2J 42 030007	MON EADI ENGINE INSTRUMENT SCAN	60.00	
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 10	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
7F 12	MON NO 1 ENG VIBRA- TION AMPLITUDE INDIC	0.44	
1SC605	FLIGHT INSTRUMENT SCAN - F		
2K 15	MON EHSI DISPLAY	60.00	
2J 42	MON EROI	60.00	
3L 02	MON VERTICAL SPEED INDIC	60.00	
9A 10	MONITOR AIRSPEED INDIC	60.00	
LMNT11	RECEIVE INST TO FLY DIRECT TO GATE		
1PLMNT23	MSG- UNITED76 FLY DIRECT TO APPROACH GATE	3.50	
1PLMNT24	COM- UNITED76 ROGER DIRECT TO GATE	3.00	

760. 810. 860. 910. 960. 1010. 1060.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
ALT2CH	ALTITUDE CHANGE PROC		▽
3K 04	FOR 20 FLIGHT PATH	0.76	I
3K 03	MON ALT ALERT BARO	2.72	D
2H 22	SET INDIC	0.77	I
140023	SET ALT ALERT BARO		
9H 02	MONITOR FPA SEL MODE		
1P140045	LT GREEN - FPA SEL		
030007	MODE ENGAGED		
7F 30	REPORT 1000 FT TO		▽
7F 25	LEVEL OFF		I
7F 21	MON CORR BARO ALT	2.13	I
7F 22	INDIC		
7F 31	CALL OUT - (1000 FEET	1.70	I
7F 32	TO LEVEL OFF)		
7F 23	ENGINE INSTRUMENT		▽
7F 24	SCAN		I
7F 33	MON ENG NO 2 EPR IND	0.44	I
7F 34	MON ENG NO 1 EPR IND	0.44	I
7F 09	MON NO 1 ENG N1 IND	0.44	I
7F 10	MON NO 2 ENG N1 IND	0.44	I
7F 18	MON ENG NO 1 EXH GAS	0.44	I
7F 19	TEMP IND		
7F 12	MON ENG NO 2 EXH GAS	0.44	I
7F 20	TEMP IND		
7F 28	MON NO 1 ENG N2 IND	0.44	I
7F 30	MON NO 2 ENG N2 IND	0.44	I
7F 32	MON ENG NO 1 FUEL	0.44	I
7F 34	FLOW INDIC		
7F 09	MON ENG NO 2 FUEL	0.44	I
7F 10	FLOW INDIC		
7F 18	MON NO 1 ENG OIL	0.44	I
7F 19	PRESS INDIC		
7F 20	MON NO 1 ENG OIL	0.44	I
7F 28	TEMP INDIC		
7F 30	MON NO 2 ENG OIL	0.44	I
7F 32	TEMP INDIC		
7F 34	MON NO 1 ENG OIL QTY	0.44	I
7F 09	INDIC		
7F 10	MON NO 2 ENG OIL	0.44	I
7F 18	QTY INDIC		
7F 19	MON NO 1 ENG VIBRA-	0.44	I
7F 20	TION AMPLITUDE INDIC		
7F 28	MON NO 2 ENG VIBR	0.44	I
7F 30	AMPLITUDE INDIC		
7F 32	FLIGHT INSTRUMENT		▽
7F 34	SCAN - E		
2J 42	MON EADI	30.00	I

760. 810. 860. 910. 960. 1010. 1060.

CODE		EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
3L	02	MON VERTICAL SPEED INDIC	30.00	
3R	10	MONITOR AIRSPEED INDIC	30.00	
2K	14	MON EHSI DISPLAY PILOT MONITORS EADI- ESHI SYMBOLS FOR ALTITUDE CAPTURE	30.00	
	030007	ENGINE INSTRUMENT SCAN		
7F	30	MON ENG NO 2 EPR IND	0.44	
7F	25	MON ENG NO 1 EPR IND	0.44	
7F	22	MON NO 2 ENG N1 IND	0.44	
7F	21	MON NO 1 ENG N1 IND	0.44	
7F	32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F	31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F	24	MON NO 2 ENG N2 IND	0.44	
7F	23	MON NO 1 ENG N2 IND	0.44	
7F	34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F	33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F	09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F	18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F	10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F	19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F	11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F	20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
7F	12	MON NO 1 ENG VIBRA- TION AMPLITUDE INDIC	0.44	

760. 810. 860. 910. 960. 1010. 1060.

UNSHIFTED

MISSION - DENVER LMNT2D APP/LN
 WITH HOLDING PTN -
 CONFIGURATION - AFD SIM DATA
 FLIGHT PHASE - FINAL APP TO LANDING
 FOR LONGMONT
 CREWMEMBER - COPILOT

OCT 19, 1978

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
LMNT56	U 76 CROSSES GATE SETS FLAPS TO 25		✓
LMNT12	SLOWS TO APRCH SPD RECEIVE INST TO SLOW TO APRCH SPEED AND CALL TOWER AT O.M.		✓
1PLMNT25	MSG- UNITED76 REDUCE TO APPROACH SPEED CONTACT TWR AT O.M.	5.50	□
030007	DN120.0 ENGINE INSTRUMENT SCAN		✓
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 30	MON ENG NO 2 EPR IND	0.44	I
7F 22	MON NO 2 ENG N1 IND	0.44	I
7F 21	MON NO 1 ENG N1 IND	0.44	I
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	I
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	I
7F 24	MON NO 2 ENG N2 IND	0.44	I
7F 23	MON NO 1 ENG N2 IND	0.44	I
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	I
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	I
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	I
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	I
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	I
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	I
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	I

990. 1040. 1090. 1140. 1190. 1240. 1290.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1PLMNT26	COM- UNITED76 ROGER SLOW TO APPROACH SPD CONTACT TOWER 120.0 AT 0.M.	5.50	□
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	I
7F 12	MON NO 1 ENG VIBRA- TION AMPLITUDE INDIC	0.44	I
160060 ISC105	EXTEND LANDING GEAR FLIGHT INSTRUMENT SCAN - 8		▽ ▽
3A 10	MONITOR AIRSPEED INDIC	10.00	□
2K 14	MON EHSI DISPLAY	10.00	□
4D 03	SET LANDING GEAR LEVER TO DOWN POSITION	3.27	□
2J 42	MON EADI	10.00	□
3L 02	MON VERTICAL SPEED INDIC	10.00	□
4D 05	MONITOR NOSE GEAR DOWN AND LOCKED LT ON	0.54	I
4D 09	MONITOR LEFT/RT GEAR DOWN AND LOCKED LT ON	0.54	I
160053	SET FLAPS TO FLAPS 25		▽
160010	FLAP SET PROCEDURE		▽
1P 10	MON VERBAL REPORT	0.70	I
4E 12	SET FLAP CONT LEVER TO FLAPS 25	2.90	□
4E 15	MONITOR FLAP POSITION INDICATOR	2.23	□
4N 03	MON LE FLAPS-IN- TRANSIT LT ON	1.17	I
4E 16	CHECK FLAP LEVER AND POSITION INDIC AGREE	2.50	□
4N 04	MON LE FLAPS-IN- TRANSIT LT OFF	1.17	I
1P160070 LNDCLR	CALL OUT -[FLAPS 25] CONTACT TOWER FOR FINAL LANDING CLEAR- ANCE	0.70	I ▽
1B 05	SET VHF-2 COMM TFR SW TO LEFT	2.39	□

990. 1040. 1090. 1140. 1190. 1240. 1290.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1B 25	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	5.00	□
1B 17	COMM VIA VHF-2	5.00	□
1PLNDCL2	RADIO COMM-DENVER TOWER, THIS IS U 24 OVER THE GATE	4.00	□
1B 19	INBOUND FOR LNDG MON VHF-2 COMM AUDIO	7.00	□
1PLNDCL3	ZERO EIGHT, OVER]	1.00	□
1PLNDCL4	MON RADIO COMM - UNITED 24, DENVER TOWER, ROGER, CLEAR TO LAND RUNWAY TWO	4.00	□
1PLNDCL5	SIX, WIND TWO ONE ZERO DEGREES AT ZERO NINER.]	3.00	□
1PLNDCL1	RADIO COMM - [U24, ROGER]	1.70	□
1B 29	ACTUATE COMM 2 PUSH-TO-TALK SW	1.70	□
1B 15	COMM VIA VHF-2	1.70	□
LMNT57	UNITED 76 CROSSES O.M. SETS FLAPS 40		▽
ISC105	FLIGHT INSTRUMENT SCAN - B		▽
LNDCLR	CONTACT TOWER FOR FINAL LANDING CLEARANCE		▽
2K 14	MON EHSI DISPLAY	10.00	□
1B 05	SET VHF-2 COMM TFR SW TO LEFT	2.39	□
2J 42	MON EADI	10.00	□
3L 02	MON VERTICAL SPEED INDIC	10.00	□
3A 10	MONITOR AIRSPEED INDIC	10.00	□
1B 17	COMM VIA VHF-2	5.00	□
1B 25	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	5.00	□
1PLNDCL2	RADIO COMM-DENVER TOWER, THIS IS U 24 OVER THE GATE	4.00	□
160059	INBOUND FOR LNDG CROSS RHY XX OUTER MARKER		▽
160057	SET FLAPS TO FLAPS 40		▽

990. 1040. 1090. 1140. 1190. 1240. 1290.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
160018	FLAP SET PROCEDURE		▽
1P 10	MON VERBAL REPORT	0.70	↓
1PLNDCL3	ZERO EIGHT, OVER]	1.00	↓
1B 19	MON VHF-2 COMM AUDIO	7.00	□
4E 14	SET FLAP CONT LEVER TO FLAPS 40	2.92	□
1P 13	MON VERBAL REPORT	1.00	□
4N 03	MON LE FLAPS-IN-TRANSIT LT ON	1.17	↓
4E 15	MONITOR FLAP POSITION INDICATOR	2.23	□
1PLNDCL4	MON RADIO COMM - [UNITED 24, DENVER TOWER, ROGER, CLEAR TO LAND RUNWAY TWO SIX, WIND TWO ONE ZERO DEGREES AT ZERO NINER.]	4.00	□
1PLNDCL5	CHECK FLAP LEVER AND POSITION INDIC AGREE	3.00	□
4E 16	RADIO COMM - [U24, ROGER]	2.50	□
1PLNDCL1	ACTUATE COMM 2 PUSH-TO-TALK SW	1.70	□
1B 29	COMM VIA VHF-2	1.70	□
1B 15	MON LE FLAPS-IN-TRANSIT LT OFF	1.70	□
4N 04	CALL OUT - [FLAPS 40]	1.17	↓
1P160073	FLIGHT INSTRUMENT SCAN - G	0.70	▽
ISC90S	MONITOR AIRSPEED INDIC	90.00	▬
3A 11	MON EHSI DISPLAY	90.00	▬
2K 15	MON EADI	90.00	▬
2J 43	MON VERTICAL SPEED INDIC	90.00	▬
3L 03	FLIGHT INSTRUMENT SCAN - C	90.00	▽
ISC15S	MON EHSI DISPLAY	15.00	▬
2K 16	MON EADI	15.00	▬
2J 43	MON IVSI INDIC	15.00	▬
3L 04	MON AIRSPEED INDIC	15.00	▬
3A 14	DESCEND THRU -DECISION HEIGHT	15.00	▽
160065	MON DECISION HGT LT ON FDI	2.58	□
9R 12			

990. 1040. 1090. 1140. 1190. 1240. 1290.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1P160083	CALL OUT -[DECISION HEIGHT]	0.00	1

990. 1040. 1090. 1140. 1190. 1240. 1290.

3.0 METERING AND SPACING SCENARIO DATA FILE

The data file consists of four parts: a Phase Library, an Event/Procedure Library, a Task Library and a Subsystem Library. The modular construction allows for ease of file maintenance and modification. It also avoids the need to duplicate data as single tasks may be used in several procedures and individual procedures may be used in many phases.

BYRZ BYERS APPROACH TO	BYRZ01	00	MCA60S	00	ISP60S	00	ISC120	00
LANDING FROM ENROUTE	140023	42	MCA05S	100	ISP05S	100	MCA10S	110
CRUISE	ISP10S	110	BYRZ50	120	ALTCUP	120	MCA10S	130
	ISP10S	130	BYRZ51	140	BYRZ02	140	MCA05S	140
	ISP05S	140	AFDALT	144	ALTCDN	145	BYRZ03	152
	MCA10S	155	ISP05S	155	ISC60S	200	BYRZ52	200
	BYRZ04	200						
	MCA10S	155	ISP10S	155	BYRZ04	200	BYRZ71	200
	ALTCUP	205	AFDSPD	215	MCA05S	215	MCA60S	220
	ISP60S	220	ISC30S	300	MCA05S	320	ISP05S	320
	MCA15S	325	ISP15S	325	ISC10S	330		
WTKN DESCENT FROM BYERS	BYRZ53	00	AFDSPD	00	MCA30S	00	ISP30S	00
TO WATKINS INTER-	ISC20S	00	BYRZ54	10	ISC30S	20	MCA15S	30
SECTION	ISP15S	30	160011	45				
	BYRZ61	55	BYRZ55	55	AFDALT	50	ALTCDN	55
	RVUDAT	100	MCA120	105	ISP120	105	ISC90S	130
	140023	225						
	ISC30S	300	MCA10S	305	ISP10S	305	MCA10S	315
	ISP10S	315	BYRZ67	325	ALTCUP	325	ISC10S	330
	MCA30S	335						
	ISP30S	335	170007	340	ISC10S	400	BYRZ70	405
	BYRZ07	405	HDGCHG	405				
	ISC10S	410	AFDSPD	415	MCA05S	415	ISP05S	415
GATE COURSE DEVIATION FOR	MCA20S	00	ISP20S	00	ISC10S	10	MCA05S	20
	ISP05S	20						
SPACING - WATKINS TO	BYRZ63	25	160017	25	160018	25	MCA10S	25
THE GATE	ISP10S	25	MCA10S	35	ISP10S	35	160025	35
	160018	35	BYRZ08	40	AFDALT	40	HDGCHG	45
	ISC120	50	ALTCDN	55	MCA120	105	ISP120	105
	ISC120	250	BYRZ69	305	ALTCUP	305		
	MCA60S	315	ISP60S	315	MCA60S	415	ISP60S	415
	ISC30S	450	160045	455	MCA10S	515	ISP10S	515
	ISC05S	520						
BFNL FINAL APPROACH TO	BYRZ58	00	160060	00	AFDSPD	10	MCA30S	10
FROM THE GATE THRU	ISP30S	10	160053	10	160018	10	ISC10S	25
TOUCHDOWN	160059	30	LNDCLR	30	ISC10S	35	160057	40
	160018	40	FNLAP6	40	160062	50		
	160018	100	ISC90S	115	FNLAP6	140	160065	220
	MCA1ND	240	ISC10S	245	ISC10S	255		
LMNT LONGMONT APPROACH TO	LMNT01	00	MCA30S	00	ISP30S	00	140023	00
LANDING WITH HOLDING	ISC20S	10	LMNT02	24	MCA10S	30	ISP10S	30
PATTERN	030007	30	LMNT03	35	ALTCUP	40	ISC20S	40
	LMNT50	45						
	MCA60S	50	ISP60S	50	030007	100	ISC30S	110
	ISC20S	140	MCA30S	150				
	ISP30S	150	030007	200			ISC60S	210
	LMNT04	220						
	ALTCDN	220	MCA30S	230	ISP30S	230	MCA10S	300
	ISP10S	300	ALTCUP	310	ISC10S	310	MCA60S	320
	ISP60S	320	030007	320	ISC30S	330		
	LMNT05	350						
	AFDSPD	350	ISC20S	400	MCA05S	420	ISP05S	420
	LMNT06	425	LMHLDG	425	MCA10S	425	ISP10S	425
	MCA10S	435	ISP10S	435				
HPTN HOLDING PATTERN FOR	LMNT51	00	HLDPTN	00	030007	10	ISC60S	15
LONGMONT APP BETWEEN	030007	115	ISC60S	120	030007	220	ISC30S	225
MEEKER AND LONGMNT	ISC05S	255						
BRTN AIRCRAFT DEPARTS HLD	LMNT52	00	LMNT07	00	AFDSPD	5	030007	10
	MCA10S	00	ISP10S	00				
DESCENDING TO 11000	ISC30S	15	ALTCDN	20	MCA90S	30	ISP90S	30

	030007	45	ISC20S	50	ISC60S	110	MCA10S	200
	ISP10S	200						
NRTH AIRCRAFT DESCENDS	LMNT53	00	LMNT08	00	ALTCUP	02	ISC15S	02
TO 8000 AND SLOWS	AFDSPD	07	MCA30S	12	ISP30S	12	160011	17
TO 170 KTS	ISC15S	27						
	160017	42	160018	42	MCA10S	42	ISP10S	42
	ISC10S	52						
	ALTCDN	52	LMNT54	57	160025	102	160018	102
	MCA90S	102	ISP90S	102	030007	112	ISC30S	117
	ISC10S	147	LMNT09	157	ISC30S	202		
	ALTCUP	232	ISC20S	232	MCA10S	242	ISP10S	242
MTRS NORTH 1 METERING AND	LMNT55	00	HDGCHG	00	030007	00	ISC60S	05
SPACING AREA	MCA60S	10	ISP60S	10	LMNT10	105	030007	105
	HDGCHG	110	ISC60S	110	MCA60S	120	ISP60S	120
	030007	210	ISC60S	215	MCA10S	220	ISP10S	220
	LMNT11	225	HDGCHG	230	AFDALT	235	ALTCDN	240
	MCA60S	250	ISP60S	250	140023	255	030007	315
	ISC30S	320	ALTCUP	350	030007	350		
LFNL FINAL APP TO LANDING	LMNT56	00	LMNT12	00	030007	02	AFDSPD	07
FOR LONGMONT	160060	07	ISC10S	07				
	MCA30S	07	ISP30S	07	160053	17	160018	17
	030007	27	ISC20S	37	MCA10S	37	ISP10S	37
	LMNT57	47	LNDCLR	47	MCA10S	47	ISP10S	47
	180031	57	160057	57	160018	57	FNLAP6	57
	ISC90S	107	FNLAP3	157	160065	227	ISC10S	237
	MCALHD	227						
BYR2 BYERS APPROACH TO	BYRZ01	00		00	ISP60S	00	ISC120	00
LANDING FROM ENROUTE	140023	42	ISP20S	100	ISP20S	120		
CRUISE			BYRZ50	120	ALTCPT	120		
			BYRZ51	140	BYRZ02	140		
	ISP05S	140			ALT2CH	145	BYRZ03	152
			ISP05S	155	ISC60S	200	BYRZ52	200
			BYRZ71	200	BYRZ04	200	AFDALT	200
	ALTCPT	205	AFDSPD	215		215		220
	ISP60S	220	ISC30S	300		320	ISP05S	320
			ISP15S	325	ISC10S	330		
WTK2 DESCENT FROM BYERS	BYRZ53	00	AFDSPD	00		00	ISP30S	00
TO WATKINS INTER-	ISC20S	00	BYRZ54	10	ISC30S	20		30
SECTION	ISP15S	30	160011	45				
	BYRZ61	55	BYRZ55	55			ALT2CH	55
	RVUDAT	100			105	ISP120	105	ISC90S
	140023	225						
	ISC30S	300			305	ISP10S	305	
	ISP10S	315	BYRZ67	325	ALTCPT	325	ISC10S	330
		335						
	ISP30S	335	170007	340	ISC10S	400	BYRZ70	405
	BYRZ07	405	TKACHG	405				
	ISC10S	410	AFDSPD	412			415	ISP05S
GTE2 COURSE DEVIATION FOR		00	ISP20S	00	ISC10S	10		20
	ISP05S	20						
SPACING - WATKINS TO	BYRZ63	25	160017	25	160018	25		25
THE GATE	ISP10S	25		35	ISP10S	35	160025	35
	160018	35	BYRZ08	43			TKACHG	45
	ISC120	50	ALT2CH	55		105	ISP120	105
	ISC120	250	BYRZ69	305	ALTCPT	305		
		315	ISP60S	315			415	ISP60S
	ISC30S	450	160045	455			515	ISP10S
	ISC05S	520						
BFN2 FINAL APPROACH TO	BYRZ58	00	160060	00	LNDARM	00	AFDSPD	10
FROM THE GATE THRU	ISP30S	10	160053	10	160018	10	LNDCLR	10

TOUCHDOWN	ISC10S	25	160059	30	ISC10S	35	160057	40
	160018	40	ATOLN6	40	160062	50		
	160018	100	ISC90S	115	ATOLN6	140	160065	220
	ATOLND	240	ISC10S	245	ISC10S	255		
LMT2 LONGMONT APPROACH TO	LMNT01	00		00	ISP30S	00	140023	00
LANDING WITH HOLDING	ISC20S	10	LMNT02	24		30	ISP20S	30
PATTERN	030007	30	LMNT03	35			ISC20S	40
	ALTCPT	40	LMNT50	45				
			ISP60S	50	030007	100	ISC30S	110
	ISC20S	140		150				
	ISP30S	150	030007	200			ISC60S	210
	LMNT04	220						
	ALT2CH	220		230	ISP30S	230		300
	ISP20S	300	ALTCPT	310	ISC10S	310		320
	ISP60S	320	030007	320	ISC30S	330		
	LMNT05	350						
	AFDSPD	350	ISC20S	400		420	ISP05S	420
	LMNT06	425	AFDSPD	425	LMHLDG	425	ISP05S	430
		435	ISP10S	435				
HPT2 HOLDING PATTERN FOR	LMNT51	00	HLDPIN	00	030007	10	ISC60S	15
LONGMONT APP BETWEEN	030007	115	ISC60S	120	030007	220	ISC30S	225
MEEKER AND LONGMNT	ISC05S	255						
BTN2 AIRCRAFT DEPARTS HLD	LMNT52	00	LMNT07	00	AFDSPD	00	ISP15S	05
DESCENDING TO 11000	030007	10	ISC30S	15	LMNT58	20	ALT2CH	20
	ISP90S	30	030007	45	ISC20S	50	ISC60S	110
	ISP10S	200						
NRT2 AIRCRAFT DESCENDS	LMNT08	00	LMNT53	00	ALTCPT	02	ISC15S	02
TO 8000 AND SLOWS	AFDALT	02	AFDSPD	05	ISP05S	07	ISP30S	12
TO 170 KTS	160011	17	ISC15S	27				
	160017	42	160018	42		42	ISP10S	42
	ISC10S	52						
	ALT2CH	52	LMNT54	57	160025	102	160018	102
		102	ISP90S	102	030007	112	ISC30S	117
	ISC10S	147	LMNT09	157	ISC30S	202		
	ALTCPT	232	ISP20S	232	ISC20S	232		
MTR2 NORTH 1 METERING AND	LMNT55	00	TKACHG	00	030007	00	ISC60S	05
SPACING AREA		10	ISP60S	10	LMNT10	105	030007	105
	TKACHG	110	ISC60S	110		120	ISP60S	120
	030007	210	ISC60S	215		220	ISP10S	220
	LMNT11	225	TKACHG	230			ALT2CH	240
		250	ISP60S	250	140023	255	030007	315
	ISC30S	320	ALTCPT	350	030007	350		
LFN2 FINAL APP TO LANDING	LMNT12	00	LMNT56	00	LNDARM	00	030007	02
FOR LONGMONT	ISP05S	05	160060	07	ISC10S	07		
		07	ISP30S	07	160053	17	160018	17
	LNDCLR	27	ISP10S	37	ISC10S	47		
	LMNT57	47	LNDCLR	47		47	ISP10S	47
	160059	57	160057	57	160018	57	ATOLN6	57
	ISC90S	107	ATOLN3	157	160065	252	ATOLND	227
	ISC15S	237						
EVENT/PROCEDURE								
AFDALT ALTITUDE CHANGE PROC	2H	33	0	10	P1 2H	34	1.40	10 P1
AFDSPD AIRSPEED CHANGE PROC	2H	47	0	10	P1 2H	48	1.40	10 P1
ALT2CH ALTITUDE CHANGE PROC	2H	33	0		P1 2H	31	0	P1
FOR 2D FLIGHT PATH	3K	03	0		CP1 3K	04	0	CP1
	2H	34	1.0		P1 2H	28	2.06	P1
	2H	30	2.5		P1 2H	26	3.48	P1
	2K	32	4.5		P1 2H	21	5.93	P1
	2H	22	5.93		CP1 3A	01	6.81	P1
	3L	05	7.41		P1 3H	02	8.01	P1

ALTCPT	PILOT MONITORS EADI- ESHI SYMBOLS FOR ALTITUDE CAPTURE										
ALTCDN	ACTUATE VCWS TO	4F	03	0	10	P3	4A	64	0	10	P2
	START DESCENT	3H	06	0	10	P2	3L	02	0	10	P1
		3A	10	0	10	P1	2K	32	0	10	P2
ALTCUP	ACTUATE VCWS TO	4F	01	0	10	P3	4A	64	0	10	P2
	END DESCENT	3H	06	0	10	P2	3L	02	0	10	P1
		3A	10	0	10	P1	2K	32	0	10	P2
ATOLN3	MONITOR A/C ON FINAL						2J	04	0	10	P2
	APPROACH - PILOT	2J	05	0	10	P3	2J	38	0	10	P3
	(30 SEC)	2J	39	0	10	P3	2J	30	0	10	P2
		2J	40	0	10	P2	3A	10	0	10	P3
		3H	06	0	10	P3	3L	02	0	10	P3
ATOLN6	MONITOR A/C ON FINAL						2J	04	0	10	P4
	APPROACH - PILOT	2J	09	0	10	P2	2J	38	0	10	P4
	(60 SEC)	2J	39	0	10	P4	2J	30	0	10	P3
		2J	40	0	10	P3	3A	10	0	10	P4
		3H	06	0	10	P4	3L	02	0	10	P4
ATOLND	MONITOR AIRCRAFT	2J	44	0	10	P1	2J	09	0	10	P3
	ON FINAL APP	2J	24	10	10	P1	2J	41	15	10	P1
		4B	08	21	10	P1	3V	28	21	10	P1
BYRZ01	START OF FLIGHT	1PBYRZ01		0.0		*1	1PBYRZ02		5.0		CP1
	SCENARIO MESSAGE	1PBYRZ03		6.5		*1	1PBYRZ04		11.5		CP1
BYRZ02	RECEIVE CLEARANCE TO	1PBYRZ05		0.0		*1	1PBYRZ06		3.5		CP1
	12000										
BYRZ03	RECEIVG CLEARANCE TO	1PBYRZ07		0.0		*1	1PBYRZ08		3.5		CP1
	11000										
BYRZ04	RECEIVG SPEED REDUCT	1PBYRZ09		0.0		*1	1PBYRZ10		3.0		CP1
	TION TO 250 KTS										
BYRZ05	RECEIVE SPEED REDUCT	1PBYRZ11		0.0		*1	1PBYRZ12		3.0		CP1
	10N TO 200 KTS										
BYRZ06	CONTACT DENVER LCL	1PBYRZ13		0.0		*1	1R	07	5.0		CP3
	ON 118.3	1R	08	5.0		CP4	1R	09	7.9		CP2
		1PBYRZ14				CP1	1PBYRZ15		9.9		CP1
BYRZ07	RECEIVE METER/SPACE	1PBYRZ16		0.0		*1	1PBYRZ17		6.0		CP1
	INSTRUCTIONS										
BYRZ08	RECEIVE INSTRUCTIONS	1PBYRZ18		0.0		*1	1PBYRZ19		6.0		CP1
	TO PROCEED DIRECT TO										
	THE GATE										
BYRZ50	UAL 24 REACHES 13000										
BYRZ51	U 24 CLEARED FOR DES										
	CENT										
BYRZ52	U 24 SPEED REDUCTION										
	TO 250 KTS										
BYRZ53	U 24 SPEED REDUCTION										
	TO 200 KTS										
BYRZ54	U 24 CROSSES BYERS										
	INTERSECTION @ 11000										
BYRZ55	U 24 BEGINS STAR										
	DESCENT TO 8000										
BYRZ56	U 24 DESCENDS TO										
	7000										
BYRZ57	U 24 DESCENDS TO										
	6500										
BYRZ58	U 24 CROSSES GATE AT										
	6500 AND 150 KTS,										
	SLOWS TO 120KTS,										
	FLAPS ON SCHED										
BYRZ60	U 24 REACH 250 KTS										

		1R 07	7.5	CP1 1R 08	7.5	CP1
		1R 09	9.4	CP1 1PLMNT03	12.4	CP1
		1PLMNT04	15.4	CP1 1PLMNT05	20.4	CP1
LMNT02	DESCENT INSTRUCTIONS	1PLMNT06	0.0	*1 1PLMNT07	3.0	CP1
	TO 15000					
LMNT03	RECEIVE HOLDING PTN	1PLMNT08	0.0	*1 1PLMNT09	5.0	CP1
	INSTRUCTIONS					
LMNT04	DESCENT INSTRUCTIONS	1PLMNT10	0.0	*1 1PLMNT11	3.0	CP1
	TO 14000					
LMNT05	RECEIVE SPEED REDUCT	1PLMNT12	0.0	*1 1PBVRZ10	3.0	CP1
	ION TO 250 INST					
LMNT06	RECEIVE HOLDING PTN	1PLMNT13	0.0	*1 1PLMNT14	5.5	CP1
	INSTRUCTIONS					
LMNT07	RECEIVE DESCENT INST	1PLMNT15	0.0	*1 1PLMNT16	4.5	CP1
	AND SPEED INCREASE					
LMNT08	RECEIVE SPEED REDUCT	1PLMNT17	0.0	*1 1PLMNT18	3.0	CP1
	ION INSTRUCTIONS-170					
LMNT09	CONTACT DENVER LCL	1PLMNT19	0.0	*1 1PLMNT20	3.5	CP1
	CONTROL 118.3	1R 07	7.0	CP1 1R 08	7.0	CP1
		1R 09	9.9	CP1 1PLMNT03	12.8	CP1
LMNT10	RECEIVE INST TO FLY	1PLMNT21	0.0	*1 1PLMNT22	3.0	CP1
	DIRECT ALTURA					
LMNT11	RECEIVE INST TO FLY	1PLMNT23	0.0	*1 1PLMNT24	3.5	CP1
	DIRECT TO GATE					
LMNT12	RECEIVE INST TO SLOW	1PLMNT25	0.0	*1 1PLMNT26	5.5	CP1
	TO APRCH SPEED AND					
	CALL TOWER AT O.M.					
LMNT50	UNITED 76 REACHES					
	15000 AND LEVELS OFF					
LMNT51	UNITED 76 CROSSES					
	LONGMONT INTSCTN AND					
	ENTERS HLDG PTN AT					
	210KTS					
LMNT52	UNITED 76 DEPARTS					
	HLDG PTN CONTINUING					
	FLIGHT PATH					
LMNT53	UNITED 76 CROSSES					
	BRIGHTON INTSCTN @					
	11000, LEVELS OFF					
	AND SLOWS TO 170					
LMNT54	UNITED 76 REACHES					
	170KTS AND RESUMES					
	DESCENT TO 8000					
LMNT55	UNITED 76 CROSSES					
	MORTH1 INTSCTN @ 170					
	170KTS AND 8000					
LMNT56	U 76 CROSSES GATE					
	SETS FLAPS TO 25					
	SLOWS TO APRCH SPD					
LMNT57	UNITED 76 CROSSES					
	O.M. SETS FLAPS 40					
LMNT58	PILOT SETS HLD PTN					
	SPEED ON CAS INDIC					
MCA055	CONTROL AIRCRAFT - A 4A	64	0	10 P3 4B	09	0 10 P1
	(5 SEC PROC)					
ISP055	FLIGHT INSTRUMENT	2J 42	0	10 P1 3L	02	0 10 P2
	SCAN - A	3A 10	0	10 P2 2K	16	0 10 P2
ISC055	FLIGHT INSTRUMENT	2J 42	0	10CP1 3L	02	0 10CP2
	SCAN - A	3A 10	0	10CP2 2K	16	0 CP2
MCA105	CONTROL AIRCRAFT - B 4A	64	0	10 P2 4B	09	0 10 P2

(10 SEC PROC)									
ISP10S	FLIGHT INSTRUMENT	2J	42	0	10 P2 3L	02	0	10 P1	
	SCAN - B	3A	10	0	10 P1 2K	14	0	10 P2	
ISC10S	FLIGHT INSTRUMENT	2J	42	0	10CP2 3L	02	0	10CP1	
	SCAN - B	3A	10	0	10CP1 2K	14	0	CP2	
MCA15S	CONTROL AIRCRAFT - A	4A	31	0	10 P3 4B	09	0	10 P3	
(15 SEC PROC)									
ISP15S	FLIGHT INSTRUMENT	2J	43	0	10 P3 3L	04	0	10 P4	
	SCAN - C	3A	14	0	10 P3 2K	16	0	10 P3	
ISC15S	FLIGHT INSTRUMENT	2J	43	0	10CP3 3L	04	0	10CP4	
	SCAN - C	3A	14	0	10CP3 2K	16	0	CP3	
MCA20S	CONTROL AIRCRAFT - A	4A	31	0	10 P4 4B	09	0	10 P4	
(20 SEC PROC)									
ISP20S	FLIGHT INSTRUMENT	2J	43	0	10 P4 3L	04	0	10 P2	
	SCAN - D	3A	14	0	10 P4 2K	16	0	10 P4	
ISC20S	FLIGHT INSTRUMENT	2J	43	0	10CP4 3L	04	0	10CP2	
	SCAN - D	3A	14	0	10CP4 2K	16	0	CP4	
MCA30S	CONTROL AIRCRAFT - C	4A	64	0	10 P4 4B	10	0	10 P1	
(30 SEC PROC)									
ISP30S	FLIGHT INSTRUMENT	2J	42	0	10 P3 3L	02	0	10 P3	
	SCAN - E	3A	10	0	10 P3 2K	14	0	10 P3	
ISC30S	FLIGHT INSTRUMENT	2J	42	0	10CP3 3L	02	0	10CP3	
	SCAN - E	3A	10	0	10CP3 2K	14	0	CP3	
MCA60S	CONTROL AIRCRAFT - F	4A	65	0	10 P1 4B	10	0	10 P2	
(60 SEC PROC)									
ISP60S	FLIGHT INSTRUMENT	2J	42	0	10 P4 3L	02	0	10 P4	
	SCAN - F	3A	10	0	10 P4 2K	15	0	10 P2	
ISC60S	FLIGHT INSTRUMENT	2J	42	0	10CP4 3L	02	0	10CP4	
	SCAN - F	3A	10	0	10CP4 2K	15	0	CP2	
MCA90S	CONTROL AIRCRAFT - G	4A	65	0	10 P4 4B	10	0	10 P3	
(90 SEC PROC)									
ISP90S	FLIGHT INSTRUMENT	2J	43	0	10 P1 3L	03	0	10 P3	
	SCAN - G	3A	11	0	10 P3 2K	15	0	10 P3	
ISC90S	FLIGHT INSTRUMENT	2J	43	0	10CP1 3L	03	0	10CP3	
	SCAN - G	3A	11	0	10CP3 2K	15	0	CP3	
MCA120	CONTROL AIRCRAFT - H	4A	65	0	10 P3 4B	10	0	10 P4	
(120 SEC PROC)									
ISP120	FLIGHT INSTRUMENT	2J	43	0	10 P2 3L	03	0	10 P2	
	SCAN - H	3A	11	0	10 P2 2K	15	0	10 P4	
ISC120	FLIGHT INSTRUMENT	2J	43	0	10CP2 3L	03	0	10CP2	
	SCAN - H	3A	11	0	10CP2 2K	15	0	CP4	
MCA1ND	CONTROL AIRCRAFT	4A	79	0	10 P1 2J	09	0	10 P3	
		2J	44	0	10 P1 2J	25	0	10 P2	
		2J	24	10	10 P1 2J	41	15	10 P1	
		4B	08	21	10 P1				
RVUDAT	CREWMEMBER REVIEWS	8B	06	0	10CP1	8B160003	6	10CP2	
	CHARTS/APPROACH DATA	8B	07	25	10CP1				
	FOR NAV INFORMAT'N								
	THRU TOUCHDOWN								
TKACHG	HEADING CHANGE PROC	2H	19	0	P1 2K	47	.3	P2	
	TO DEVIATE FROM 2D	2K	17	.3	P1 2H	17	2.5	P1	
	FLIGHT PATH	2H	14	3.3	P1 2H	15	4.0	P2	
		2H	38	4.0	P2 2K	59	4.8	P1	
		3A	10	4.8	P2 3H	07	4.8	P1	
		2J	42	5.0	P1 2K	16	5.0	P1	
00XX01	MASTER CAUTION WARN	7A	24	0	10 x1 7A	25	.73	10 P1	
	LIGHT PROCEDURE	7A	37	2.9	10 P1			10	
00XX02	CHECKLIST RETRIEVAL	1PXXXX01		0	10 P1 1P	02	0	10CP1	
	PROCEDURE	8B	02	1.5	10CP2 8B	05	7.4	10CP2	
00XX03	CHECKLIST COMPLETE	1PXXXX02		0	10CP1 1P	06	0	10 P3	

	PROCEDURE	1P	03	1	10 P1	8B	08	1.5	10CP1
00BA01	READ AND DO C/L FUEL	1P00BA01		0	10 P1	1P	07	0	10CP3
	HEAT VALVE FAILURE	1P00BA02		2.3	10CP1	1P	17	2.3	10 P4
		7F	09	4.3	10CP1	7F	10	4.3	10CP1
		1P00BA03		6.4	10CP1	1P	02	6.4	10 P1
00BB01	READ AND DO C/L MIN	1P00BB01		0	10 P1	1P	02	0	10CP1
	FUEL GO-AROUND	1P00BB02		1.5	10CP1	1P	02	1.5	10 P1
		1P00BB03		3	10CP1	1P	06	3	10CP3
		7C	24	4	10 P2	7C	26	6.4	10 P1
		7C	30	7.8	10 P2	7C	35	9.4	10 P2
		7C	38	10.8	10 P1	7C	42	12.2	10 P2
		1P00BB04		13.7	10 P1	1P	06	13.7	10CP3
		1P00BB05		14.7	10CP1	1P	02	14.7	10 P2
		7C	16	16.7	10 P2	1P00BB06		18.7	10 P1
		1P00BB07		19.2	10CP1	1P	07	19.2	10 P3
		1P00BB08		21.5	10 P1	1P	06	21.5	10CP1
00BC01	READ AND DO C/L FUEL	7C	47	0	10CP1	1P00BC01		1	10CP1
	FILTER ICING	1P	02	1	10 P1	1P00BC02		2.5	10 P1
		1P	06	2.5	10CP3	7C	18	3.5	10 P1
		7C	50	5.5	10 P2	7C	51	6.0	10 P2
		1PXXXX05		6.0	10 P1			10	
		7F	09	7.7	10 P1	7F	10	7.7	10 P1
00BD01	MONITOR FUEL GAGES,	7C	11	0	10 P3	7C	09	0	10 P3
	IDENTIFY FUEL XFR	7C	10	0	10 P3	1P00BD01		3	10 P1
	PROBLEM	1P	04	3	10CP1			10	
00BD02	READ AND DO C/L FUEL	1P00BD02		0	10CP1	1P	12	0	10 P1
	XFR PROBLEM	1P00BD03		2.5	10CP1	1P	14	2.5	10 P3
		7C	17	4.1	10 *2	7C	13	6.1	10 P1
		7C	31	6.7	10 P3	7C	35	9.1	10 P2
		1PXXXX04		10.4	10 P1	1P	11	10.4	10CP1
		1P00BD04		10.9	10CP1	1P	04	10.9	10 P2
		7C	24	13.1	10 P1	1PXXXX05		14.6	10 P1
		1P	11	14.6	10CP1	1P00BD05		15.1	10CP1
		1P	13	15.1	10 P2	1P00BD06		17.5	10 P1
		1P	12	17.5	10CP1	1P00BD07		20.1	10CP1
		1P	09	20.1	10 P1	7C	30	21.4	10 P1
		7C	34	23.0	10 P1	1PXXXX05		24.4	10 P1
		1P	11	24.4	10CP1	1P00BD08		24.9	10CP1
		1P	09	24.9	10 P2	1P00BD09		26.3	10 P1
		1P	14	26.3	10CP3			10	
00CB01	READ AND DO C/L CSD	1P00CB01		0	10 P1	1P	02	0	10 P3
	LOW OIL PRESSURE LT	1P00CB02		3	10CP1	1P	02	3	10 P2
		7B	09	5	10 P2	7B	10	5	10 P2
		7B	11	6	10 P2	7B	12	6	10 P2
		7B	13	7	10 P2	1P00CB03		8	10 P1
		1P	11	8.5	10CP1	7L	13	9	10 P4
		7L	01	11.3	10 P1	7L	23	13.4	10 P1
		7B	24	14.3	10 P1	7B	44	14.9	10 P2
		7B	25	16.4	10 P1	7B	36	16.4	10 P1
		1P00CB05		17	10 P1	1P	04	17	10CP3
		7B	68	18.8	10 P2	7B	72	21	10 P1
		7B	63	23.6	10 P1			10	
00CD01	READ AND DO C/L	1P00CD01		0	10CP1	1P	02	0	10 P2
	STDBY PWR OFF LT	1P00CD02		2	10CP1	1P	02	2	10 P1
		7B	18	3.5	10 P1	7B	15	4.7	10 P1
		7B	19	7.6	10 P2	1P00CD03		7.8	10 P1
		1P	11	7.8	10CP1			10	
00CE01	READ AND DO C/L BUS	1P00CE01		0	10 P1	1P	02	0	10CP1
	OFF LT	1P00CE02		1.5	10CP1	1P	06	1.5	10 P3
		7B	28	2.5	10 P2	7B	38	2.5	10 P2

	7B	34	3.5	10 P1	7B	29	5.5	10 P1
	7B	39	6.1	10 P1	1P00CE03		6.6	10CP1
	1P	06	6.6	10 P1	1P00CE04		9.1	10 P1
	1P	04	9.1	10CP2				10
00CF01 READ AND DO C/L XFR	1P00CF01		0	10CP1	1P	02	0	10 P2
BUS OFF LT	1P00CF02		2	10CP1	1P	06	2	10 P1
	7B	26	4.5	10 P2	7B	23	5.5	10 P1
	7B	27	8.3	10 P1	1P00CF03		8.9	10 P1
	1P	06	8.9	10CP3				10
00CG01 READ AND DO C/L	1P00CG01		0	10CP1	1P	06	0	10 P1
EQUIP COOLING LT OFF	1P00CG02		2.5	10CP1	7B	80	3.5	10CP1
	7B	79	5.2	10CP1	7B	81	6.3	10CP1
	1P00CG03		6.3	10CP1	1P	02	8.5	10 P1
00DA01 READ AND DO C/L HYD	1P00DA01		0	10CP1	1P	02	0	10 P2
SYS A LOSS	1P00DA02		2	10CP1	1P	02	2	10 P3
	4A	19	5	10 P1	4A	07	6.05	10 P1
	4A	03	6.71	10 P1	1P00DA03		10.04	10 P1
	1P	02	10.04	10 P2	4A	08	12	10 P3
	1P00DA04		12	10CP1	1P	02	12.9	10 P2
	7A	09	14.9	10CP1	7A	02	15.45	10CP4
	7A	10	18.2	10CP1	7A	37	18.8	10CP1
	7A	04	21.0	10CP3	7A	38	22.46	10CP1
	1P00DA05		23.01	10CP1	1P	02	23.01	10 P3
	4H	06	24.4	10 P1	1P00DA06		26.8	10 P1
	1P	02	26.8	10CP2	7A	21	28.8	10CP1
	7A	19	30.9	10CP2	7A	20	32.9	10CP1
	1P00DA07		34.9	10CP1	1P	17	34.9	10 P1
	1P00DA08		38.4	10CP1	1P	17	38.4	10 P1
	1P00DA09		41.9	10CP1	1P	17	41.9	10 P1
	1P00DA10		45.4	10 P1	1P	17	45.4	10CP1
	1P00DA11		49.4	10 P1	1P	07	49.4	10CP1
00FA01 READ AND DO C/L GEAR	4D	55	0	10CP1	1P00FA01		1	10 P1
NOT SEALED LT	1P	02	1	10CP2	1P00FA02		10.0	10CP1
	1P	06	10.0	10 P1	1P00FA03		12.5	10CP1
	1P	02	12.5	10 P2	4D	54	14.5	10CP1
	4D	56	17.4	10CP1				10
00FC01 READ AND DO C/L SYS	7A	19	0	10CP2	1P00FC01		0	10CP1
A/B BRAKE PRESS LOSS	1P	02	0	10 P2	1P00FC02		10.0	10CP1
	1P	02	10.0	10 P2	1P00FC03		12.0	10CP1
	1P	02	12.0	10 P1	4D	41	13.5	10CP1
	1P00FC04		16.1	10CP1	1P	03	18.1	10 P1
00FG01 READ AND DO C/L ANTI	4D	37	0	10CP1	1P00FG01		.6	10CP1
-SKID INOP LT	1P	02	.6	10 P2	1P00FG02		10.6	10CP1
	1P00FG03		13.1	10CP1	1P	17	10.6	10 P3
	4D	41	14.6	10CP1	1P00FG04		17.1	10CP1
	1P	17	17.1	10 P3	1P	03	21.1	10 P1
	1P00FG05		21.6	10CP1	1P	02	21.6	10 P1
	1P	03	23.1	10 P1				10
00FF01 READ AND DO C/L AUTO	4D	39	0	10CP1	1P00FF01		.6	10CP1
BRAKE INOP	1P	02	.6	10 P2	1P00FF02		10.6	10CP1
	1P	02	10.6	10 P2	1P00FG03		12.6	10CP1
	1P	02	12.6	10 P2	4D	41	14.6	10CP1
00GA01 READ AND DO C/L DUCT	1P00GA01		0	10CP1	1P	02	0	10 P2
OVERHEAT LT	1P00GA02		2	10CP1	1P	02	2	10 P2
	7D	29	4	10CP1	7D	41	5.88	10CP1
	7D	43	9.09	10CP1	7D	44	11.78	10CP1
	7D	47	13.85	10CP2				10
00GA02 DUCT TEMP INCR OR				10				10
MIX VALUE MOVES TO				10				10
HOT				10				10

00GA03	READ AND DO C/L DUCT	1P00GA03	0	10CP1	1P	02	0	10 P2
	OVRRHT FOR EVENT GA02	7D 56	2	10CP1	7D	43	5.23	10CP1
		7D 44	7.30	10CP1				10
00GB01	READ AND DO C/L PACK	1P00GB01	0	10CP1	1P	02	0	10 P1
	TRIP OFF LT	1P00GB02	1.5	10CP1	1P	02	1.5	10 P1
		7D 42	3.0	10CP1	7D	53	6.21	10CP2
		7D 43	8.33	10CP3	7D	44	9.33	10CP1
		1P00GB03	11.40	10CP1	1P	02	11.40	10 P2
		7D 29	13.40	10CP1	7D	22	15.28	10CP1
00GC01	READ AND DO C/L WING	1P00GC01	0	10CP1	1P	02	0	10 P2
	-BODY OVRRHT LT	1P00GC02	2	10CP1	1P	06	2	10 P1
		7D 31	4.5	10CP2	7D	41	6.35	10CP2
		7D 43	9.56	10CP3	1P00GC03		10.56	10CP1
		1P 02	10.56	10 P1	7D	28	12.06	10CP1
		7D 22	14.66	10CP1				10
00GD01	READ AND DO C/L	1P00GD01	0	10CP	1P	02	0	10 P1
	BLEED TRIP OFF LT	1P00GD02	1.5	10CP	1P	02	1.5	10 P2
		7D 29	3.5	10CP	7D	26	5.38	10CP1
00GE01	READ AND DO C/L AUTO	1P00GE01	0	10CP1	1P	02	0	10 P1
	FAIL LT	1P00GE02	1.5	10CP1	1P	02	1.5	10 P2
		7E 19	3.5	10CP1	7E	23	6.15	10CP1
		7E 27	7.12	10CP1	7E	02	7.78	10CP2
		7E 01	9.83	10CP1				10
00GF01	READ AND DO C/L OFF	1P00GF01	0	10CP1	1P	02	0	10 P2
	SCHED DESCENT	1P00GF02	2	10CP1	1P	16	2	10 P3
		3H 02	5	10CP1	7E	09	5.77	10CP1
		7E 10	8.56	10CP1	7E	25	9.76	10CP1
		7E 01	11.06	10CP1				10
00HA01	READ AND DO C/L ANTI	1P00HA01	0	10CP1	1P	17	0	10 P1
	-ICE VALVE FAIL OPEN	1P00HA02	3.5	10CP1	1P	07	3.5	10 P1
		3U 01	8	10 *1				10
00JA01	READ AND DO C/L OUTR	1P00JA01	0	10CP1	1P	02	0	10 P1
	FFD WINDOW CRACKED	1P00JA02	12	10CP1	1P	02	12	10 P2
		7K 15	14	10CP1	7K	16	14	10CP1
		1P00JA03	15.2	10CP1	1P	07	15.2	10 P1
		1P00JA04	19.7	10CP1	1P	07	19.7	10 P1
		1P00JA05	24.2	10CP1	1P	07	24.2	10 P1
		1P 03	28.7	10 P1	1P00JA06		29.2	10 P1
		1P 02	29.2	10CP2	1P	03	31.2	10CP1
00JB01	READ AND DO C/L	1P00JB01	0	10CP1	1P	02	0	10 P2
	WINDOW OVRRHT LT ON	1P00JB02	2	10CP1	1P	02	2	10 P2
		7K 15	4	10CP1	7K	16	4	10CP1
		1P00JB03	5.2	10CP1	1P	16	5.2	10 P3
		1P 03	8.2	10 P1				10
00KA01	READ AND DO C/L STAB	1P00KA01	0	10 P1	1P	02	2	10CP2
	TRIM RUNAWAY	4G 09	2	10 P2	1P00KA02		12.22	10CP1
		1P 07	12.22	10 P1	1P	03	16.72	10 P1
		1P00KA03	17.22	10CP1	1P	02	17.22	10 P2
		1P 03	19.22	10 P1	1P00KA04		19.72	10CP1
		4G 16	21.72	10 P1	4G	05	26.72	10 P1
00KB01	READ AND DO C/L JAM-	1P00KB01	0	10 P1	1P	17	0	10CP3
	MED CNTRLS	1P 03	3.5	10CP1	4A	64	3.5	10 *3
		1P00KB02	18.5	10CP1	1P	16	18.5	10 P3
		1P00KB03	21.5	10CP1	1P	07	21.5	10 P1
		1P 03	26	10 P1				10
00KC01	READ AND DO C/L JAM-	1P00KC01	0	10 P1	1P	17	0	10CP3
	MED STAB CNTRL	4G 05	.5	10 P1	1P	03	4	10CP1
		4G 16	4	10 P1	4G	16	4	10CP2
		4G 02	8.5	10 P3	4G	02	8.5	10CP2
		1P00KC02	21.92	10CP1	1P	17	21.92	10 P3

	4G	17	25.92	10 P1	4G	17	25.92	10CP2
	1P	03	29.42	10 P1	1P00KC03		29.92	10CP1
	1P	06	29.92	10 P1	1P	03	32.42	10 P1
	1P00KC04		32.92	10CP1	1P	16	32.92	10 P3
	1P00KC05		35.92	10CP1	1P	07	35.92	10 P1
	1P	03	40.42	10 P1	1P00KC06		40.92	10CP1
	1P00KC07		44.92	10 P1				10
00KX01 READ AND DO C/L FOR	1P00KX01		0	10CP1	1P	10	0	10 P1
ABNORMAL CONDITION	7J	08	1	10CP2	7J	10	3.76	10CP1
	7J	02	5.26	10CP1	7J	12	7.05	10 *1
	7J	14	7.59	10 *1	7J	16	8.13	10 *1
	7J	22	8.67	10 *1	7K	07	9.21	10CP1
	7K	11	13.43	10 *1	7J	24	14.57	10CP3
	7J	26	15.99	10CP3	7J	28	17.41	10 *2
	7J	30	17.41	10 *2	7J	32	17.91	10 *2
	7J	34	17.91	10 *2	7J	36	18.41	10 *2
	7J	38	18.41	10 *2	1P00KX02		18.91	10CP1
	1P00KX03		19.41	10CP1	1P	02	19.41	10 P2
	7E	06	21.15	10CP1				10
	7E	08	22.31	10CP1	7E	01	23.48	10CP1
	1P00KX04		24.76	10CP1	1P	02	24.76	10 P1
	1P00KX05		26.26	10CP1	1P	02	26.26	10 P1
	7M	03	27.26	10 P3	7M	06	31.30	10 P4
	1P00KX06		33.04	10 P1	1P	06	33.04	10CP4
	1P00KX07		33.84	10CP1	1P	06	33.84	10 P1
	1P	03	36.34	10 P1	1P00KX08		36.84	10CP1
	1P	02	36.84	10 P1	1P00KX09		38.34	10 P1
	1P	10	38.34	10CP1	1P00KX10		39.34	10CP1
	1P	02	39.34	10 P2	3A	05	41.34	10 *3
00K 01 READ AND DO C/L LNDG	1P00KX11		43.91	10 P1	1P	06	43.91	10CP1
- FLT CNTRL PROBLEMS	1P00K 01		0	10CP1	1P	06	0	10 P1
	1P00K 02		2.5	10CP1	1P	10	2.5	10 P1
	7A	28	3	10CP1	7A	33	4.93	10 *1
	1P00K 03		5.63	10CP1	1P	06	5.63	10 P4
	1P00K 04		6.13	10CP1	1P	10	6.13	10 P1
	4F	02	7.13	10 P3	4F	07	10.39	10 P2
	1P00K 05		10.39	10 P1	1P	10	10.39	10CP1
	1P00K 06		11.39	10CP1	1P	10	11.39	10 P1
	4E	15	11.89	10CP4	4E	17	12.86	10CP1
	1P00K 07		13.86	10CP1	1P	02	13.86	10 P1
	1P00K 08		15.36	10CP1	1P	10	15.36	10 P1
	4D	04	16.36	10 *1	4D	05	18.45	10 *2
	4D	09	18.45	10CP3	1P00K 09		19	10 P1
	1P	02	19	10 P1				10
00KD01 FLAP ASYM ADVISORY -	1P00KD01		0	10CP1	1P	06	0	10 P1
LE DEVICES	1P00KD02		2.5	10 P1	1P	06	2.5	10CP1
00KL01 FLAP ASYM ADVISORY -	1P00KL01		0	10CP1	1P	07	0	10 P1
TE FLAPS	1P00KL02		4.5	10 P1	1P	07	4.5	10 P1
	1P00KL03		9	10 P1	1P	07	9	10CP1
00KM01 FLAPS UP LNDG AVDSRY	1P00KM01		0	10CP1	1P	07	0	10 P1
	1P00KM02		4.5	10 P1	1P	19	4.5	10CP1
	1P00KM03		8.5	10CP1	1P	17	8.5	10 P1
	1P00KM04		12	10 P1	1P	16	12	10CP3
00KN01 READ AND DO C/L FLT	1P00KN01		0	10CP1	1P	02	0	10 P2
CNTRL LOW PRESS LT	1P00KN02		2	10CP1	1P	06	2	10 P1
	4A	19	4.5	10 P1	4A	07	5.5	10 P1
	4A	03	6.2	10 P1	1P00KN03		9.6	10 P1
	1P	02	9.6	10CP1				10
00KP01 READ AND DO C/L YAW	1P00KP01		0	10CP1	1P	02	0	10 P2
DAMPER LT	1P00KP02		2	10CP1	1P	02	2	10 P2

	4A	14	4	10 P1	4A	54	6.7	10 P1
	4A	13	7.9	10 P1				10
00KP02	YAW DAMPER DOES NOT	4A	55	0	10 *1	1P00KP03	1.2	10CP1
	RESET	1P	06	1.2	10 P1	4A	14	3.7 10 P1
		1P00KP04	3.7	10CP1	1P	06	3.7	10 P1
		1P	03	6.4	10 P1			10
00KQ01	READ AND DO C/L STAB	1P00KQ01	0	10 P1	1P	06	0	10CP1
	OUT OF TRIM LT	4A	76	0	10 P1	4A	02	2 10 P1
		4A	77	2	10 P1	4G	14	5 10 P3
		1P00KQ02	12	10CP1	1P	02	12	10 P1
		1P00KQ03	13.5	10CP1	1P	02	13.5	10 P2
		1P	03	15.5	10 P1	1P00KQ04	16	10CP1
		1P	02	16	10 P1	1P	03	17.5 10 P1
		1P00KQ05	18	10CP1	1P	06	18	10 P1
		1P	03	21	10 P1			10
00KR01	READ AND DO C/L SPD	4F	02	0	10 P4	4F	05	2.8 10 P2
	BRAKE NOT ARMED	1P00KR01	2.8	10 P1	1P	06	2.8	10CP1
		4F	01	2.9	10 P1	1P00KR02	13	10CP1
		1P	06	13	10 P1	1P00KR03	15.5	10CP1
		1P	16	15.5	10 P3	1P	03	18.5 10 P1
		1P00KR04	19	10CP1	1P	16	19	10 P3
		1P	03	22	10 P1			10
00KS01	READ AND DO C/L MACH	1P00KS01	0	10CP1	1P	02	0	10 P1
	TRIM FAIL	1P00KS02	1.5	10CP1	1P	16	1.5	10 P3
		1P	03	4.5	10 P1	3F	01	5 10 P1
		4B	07	5	10 P2	3F	01	8 10 P1
00EC01	MONITOR SMOKE IN			10				10
	FLT DECK			10				10
00EC02	ACTION ITEMS FLEC	7B	33	0	10 P1	7B	30	1.72 10 P1
	SYS SMOKE/FIRE	7B	43	2.31	10 P1	7B	40	4.03 10 P1
		7B	22	4.62	10 P1	7B	26	7.43 10 P1
		7B	36	8.02	10 P1	7A	25	8.61 10CP2
		7B	66	10.75	10 P2	7B	72	12.93 10 P2
		7B	63	14.99	10 P1	7B	68	17.05 10 P2
		7B	72	19.23	10 P2	7B	63	21.29 10 P1
00EC03	NOTE SMOKE DECREASE			10				10
00EC04	SMOKE CONTINUE			10				10
00EC05	READ/RESPOND PRIMARY	1P00EC01	0	10CP1	1P	05	0	10 P1
	C/L ELEC SMOKE/FIRE	1P00EC02	5	10CP1	1P	02	5	10 P2
		1P00EC03	7	10 P1	1P	07	7	10CP1
		1P00EC04	11.5	10 P1	1P	13	11.5	10CP3
		1P	03	15	10CP1	1P00EC05	15.5	10CP1
		1P	02	15.5	10 P2	1PXXXX05	17.5	10 P1
		1P	06	17.5	10CP4	1P00EC07	18	10CP1
		1P	05	18.0	10 P1	1P00EC08	23	10CP1
		1P	16	23	10 P3	1P00EC09	26	10CP1
		1P	02	26	10CP3			10
00EC06	READ/RESPOND PRIMARY	1P00EC10	0	10CP1	1P	02	0	10 P2
	C/L ELEC SMOKE/FIRE	7B	44	2	10 P2	7B	41	3.5 10 P1
		7B	26	4	10 P1	7B	63	4.7 10 P1
		1PXXXX05	6.8	10 P1	1P00EC11		7.2	10CP1
		1P	05	7.2	10 P2	1P00EC12	13.5	10 P1
		1P	07	13.5	10CP1			10
00EC07	READ AND DO C/L -A-	1P00EC12	0	10CP1	1P	02	0	10 P2
	ELEC SMOKE/FIRE	7B	34	1	10 P1	7B	31	3 10 P1
		1P00EC13	3.6	10CP1	1P	02	3.6	10 P2
		7B	43	4.6	10 P1	7B	40	6.32 10 P1
		7B	63	6.91	10 P2	7B	66	7.91 10 P2
		7B	63	10.09	10 P2	1P00EC14	11	10 P1
		1P	02	11	10CP3	1P00EC15	14	10CP1

00EC08	READ AND DO C/L -B- ELEC SMOKE/FIRE	1P	07	14	10	P1	1P	03	18.1	10	P1
		1P00EC16	0	0	10	CP1	1P	02	0	10	P2
		7B	42	2	10	P1	7B	41	3.72	10	P1
		7B	63	4.31	10	P2	7B	66	5.31	10	P2
		7B	63	7.49	10	P2	1PXXXX04		8.49	10	P1
		1P00EC17	8.99	8.99	10	CP1	1P	02	8.99	10	P2
		7B	31	10.99	10	P1	1PXXXX04		11.28	10	P1
		1P00EC18	11.78	10.99	10	CP1	1P	02	11.78	10	P1
		1P	03	13.28	10	P1	1P00EC19		13.78	10	CP1
		1P	02	13.78	10	P2	7B	16	15.78	10	P1
		7B	18	18.72	10	P2	1PXXXX04		19.31	10	P1
		1P00EC20	19.81	19.81	10	CP1	1P	02	19.81	10	P1
		7B	55	21.31	10	P1	7B	54	23.37	10	P2
		1PXXXX05	24.37	24.37	10	P1	1P00EC21		24.87	10	CP1
		1P	02	24.87	10	P2	7B	23	26.87	10	P1
		7B	27	29.68	10	P1	7B	37	30.27	10	P1
		1PXXXX06	30.86	30.86	10	P1				10	
00EC09	READ ELEC SMOKE/FIRE ADVISORIES	1P00EC22	0	0	10	CP1	1P	05	0	10	P3
		1P00EC23	4	4	10	CP1	1P	05	4	10	P3
		1P00EC24	8	8	10	CP1	1P	06	8	10	P1
		1P00EC25	10.5	10.5	10	P1	1P	05	10.5	10	CP3
00ED01	PILOT/CO-PILOT MON CABIN PRESS DROP			10	10				10	10	
00ED02	ACTION ITEMS RAPID DEPRESSURIZATION	7E	20	0	10	CP1	7E	28	2.7	10	CP1
		7E	13	3.3	10	CP1	7E	12	5.5	10	CP4
		7G	50	6.2	10	P1	7G	51	8.5	10	P1
00ED03	READ/RESPOND C/L RAPID DEPRESSURING	1A	27	0	10	CP1	1P00ED01		0	10	CP1
		1P	02	0	10	P2	7H	12	2	10	*1
		1A	26	3.5	10	P1	1P	03	4	10	P1
		1A	27	4.5	10	CP3	1P00ED02		4.5	10	CP1
		1P	02	4.5	10	P2	1P00ED03		6.5	10	CP1
		1P	02	6.5	10	P2	7E	28	8.5	10	*1
		1A	26	9.2	10	CP3	1P00ED04		9.2	10	CP1
		1P	02	9.2	10	P2	7E	12	11.2	10	*4
		1A	26	11.9	10	CP3	1P00ED05		11.9	10	CP1
		1P	02	11.9	10	P3	7G	51	14.9	10	*1
		1A	27	15.9	10	CP3	1P00ED06		15.9	10	CP1
		1P	02	15.9	10	P2	1A	28	17.9	10	P1
		1P	03	18.4	10	P1	1A	26	18.9	10	CP1
		1P00ED07	18.9	18.9	10	CP1	1P	02	18.9	10	P3
		1A	26	21.9	10	P1	1P	03	22.4	10	P1
		1A	27	22.9	10	CP2	1P00ED08		22.9	10	CP1
		1P	13	22.9	10	P3	7E	01	26.4	10	*1
		7E	02	28.9	10	*1	1A	26	31.31	10	CP3
		1P00ED09	31.31	31.31	10	CP1	1P	02	31.31	10	P2
		7H	10	33.31	10	*1	1A	26	34.71	10	P1
		1P	03	34.71	10	P1				10	
00EE01	PILOT DECIDES EMERG DESCENT REQUIRED			10	10				10	10	
				10	10				10	10	
00EE02	PRIMARY ACTION ITEMS EMERG DESCENT	1G	03	0	10	CP1	1G	01	2.32	10	P1
		1A	27	3.73	10	CP4	1P00EE01		3.73	10	P1
		7M	03	0	10	P3	7M	06	3.54	10	P4
		4A	29	6.78	10	P1	4B	08	6.78	10	P1
		7E	05	7.73	10	CP1	7E	06	7.73	10	CP2
		7F	33	7.78	10	P2	7F	34	7.78	10	P2
		4F	03	7.78	10	P1	3A	08	10.77	10	P1
		3A	11	12.77	10	P1	3L	03	12.77	10	P1
		3H	04	12.77	10	P1				10	
		1A	27	0	10	CP1	1P00EE02		0	10	CF1
00EE03	READ/RESPOND C/L EMERG DESCENT	1P	02	0	10	P3	1A	27	3	10	CP3

	1P00EE03	3	10CP1	1P	05	3	10	P3
	1A	29	7	10	P4	1P00EE04	7	10
	1P	05	7	10CP3	1A	27	11	10CP2
	1P00EE05	11	10CP1	1P	02	11	10	P1
	1A	27	12.5	10CP2	1P00EE06	12.5	10CP1	
	1P	02	12.5	10	P1	1A	14	10
	1P00EE07	14	10CP1	1P	02	14	10	P1
	1A	29	15.5	10	P1	1P00EE08	15.5	10CP1
	1P	02	15.5	10	P3	1A	18.5	10
	1P00EE09	18.5	10CP1	1A	28	18.5	10	P1
	1A	26	23	10	P1	1P	23.5	10
	1A	27	24	10CP3	1P00EE10	24	10CP1	
	1P	02	24	10	P2	4F	26	10
	1A	27	27.5	10CP2	1P00EE11	27.5	10CP1	
	1P	02	27.5	10	P1	7H	29	10
	1A	27	30.4	10CP3	1P00EE12	30.4	10CP1	
	1P	02	30.4	10	P2		10	
00EF01	PRIMARY ACTION ITEMS	7P	39	0	10	*1	7P	47
	FIRE HARN APU	7P	33	2.35	10	P2	7P	34
		7P	27	6.37	10	P1	7L	01
00EF02	READ/RESPOND C/L APU	1P00EF01	0	10CP1	1P	02	0	10
	FIRE WARN	7L	17	1.5	10	*1	1P00EF02	2.04
		1P00EF03	3.54	10CP1	1P	02	3.54	10
		1P	03	6.54	10	P1	1P00EF04	7.04
		1P	07	7.04	10	P1	1P	03
		1P00EF05	12.04	10CP1	1P	05	12.04	10
		1P	03	16.54	10	P1		10
00EG01	PRIMARY ACTION ITEMS	7P	39	0	10	*1	7P	47
	WHEEL WELL FIRE	7P	13	2.35	10	P1	4B	08
		3A	11	6	10	P4	4B	03
00EG02	ATTAIN GEAR EXT SPD			10				10
	START 160060 6			10				10
00EG03	READ/RESPOND C/L	1P00EG01	0	10CP1	1P	02	0	10
	WHEEL WELL FIRE	1P	03	1.5	10	P1	1P00EG02	2
		1P	07	2	10	P1	1P	03
		1P00EG03	7	10CP1	1P	07	7	10
		1P00EG04	11.5	10	P1	1P	05	11.5
00XX04	OX MASK/SMOKE GOGGLE	7H	17	0	10	*1	7H	24
	PROC COCKPIT SMOKE	7H	12	8	10	*1	1A	22
		1F	06	10	10	*3	1A	27
		1PXXXX01	13.5	10CP1	1P	02	13.5	10
		1A	26	15	10	P3	1PXXXX02	15
		1P	02	15	10CP1	8E	03	6
		7Q	02	6	10	P1		10
00EX01	READ/RESPOND C/L	1A	27	0	10CP4	1P00EX01	0	10CP1
	COCKPIT SMOKE	1P	06	0	10	P1	1P00EX02	2.5
		1P	02	2.5	10	P1	1P00EX03	4
		1P	02	4	10	P1	1P00EX04	5.5
		1P	02	5.5	10	P1	1A	26
		1P	03	7.5	10	P1		10
00EH01	ADVISORY/SECONDARY	1A	27	0	10CP3	1P00EH01	0	10CP1
	ITEMS COCKPIT SMOKE,	1P	05	0	10	P3	1A	27
	NO VENTING OR PRESS	1P00EH02	4	10CP1	1P	02	4	10
	URIZATION	1A	28	6	10	P1	1P	03
		4B	08	7	10	P1	7F	25
		7F	30	7	10	P3	7F	21
		7F	22	7.44	10	P3	7F	33
		7F	34	7.88	10	P2	3A	10
		1A	27	38.32	10	P2	1P00EH03	38.32
		1P	02	38.32	10CP1	1A	29	39.32

00EH02	ADVISORY/SECONDARY	1P00EH04	39.32	10CP1	1P	02	39.32	10 P2
	ITEMS COCKPIT SMOKE	1P00EH05	0	10CP1	7E	19	2.5	10CP1
	NORMAL VENTILATION	1P00EH06	5	10CP1	7E	09	9	10CP1
		7E 01	11.79	10CP2	1P00EH07		12.50	10CP1
		7E 11	15.50	10CP1	7E	37	17.63	10CP1
		1P00EH08	18.40	10CP1	7D	10	20.40	10CP1
		7D 22	21.40	10CP1	1PXXXX04		21.90	10CP1
		1PXXXX04	23.40	10CP1	7D	13	25.40	10CP1
		7D 26	25.40	10CP1	1PXXXX04		26	10CP1
		1P00EH09	27	10 P1	1P	05	27	10 P3
		4B 03	31	10 P1	7F	27	33.34	10 P2
		7F 29	33.34	10 P2	1PXXXX06		34.10	10 P1
		1P00EH10	34.60	10CP1	1P	06	34.60	10 P1
		1P 03	37.10	10 P1			10	
00IV01	COPILLOT MONITOR	2K 56	0	10CP1	1P00IV01		5	10CP1
	TRAFFIC SITUATION	1P 02	5	10 P1	1P	03	7	10 P1
00IV02	COPILLOT MONITOR	2K 56	0	10CP2	1P00IV01		5	10CP1
	TRAFFIC SITUATION	1P 02	5	10 P1	1P	03	7	10 P1
00IV03	COPILLOT MONITOR	2K 56	0	10CP3	1P00IV01		5	10CP1
	TRAFFIC SITUATION	1P 02	5	10 P1	1P	03	7	10 P1
00IV04	COPILLOT MONITOR	2K 56	0	10CP4	1P00IV01		5	10CP1
	TRAFFIC SITUATION	1P 02	5	10 P1	1P	03	7	10 P1
00IV05	COPILLOT MONITOR	2K 57	0	10CP1	1P00IV01		5	10CP1
	TRAFFIC SITUATION	1P 02	5	10 P1	1P	03	7	10 P1
00IV06	COPILLOT MONITOR	2K 57	0	10CP2	1P00IV01		5	10CP1
	TRAFFIC SITUATION	1P 02	5	10 P1	1P	03	7	10 P1
00IV07	COPILLOT MONITOR	2K 57	0	10CP3	1P00IV01		5	10CP1
	TRAFFIC SITUATION	1P 02	5	10 P1	1P	03	7	10 P1
00IV08	COPILLOT MONITOR	2K 57	0	10CP4	1P00IV01		5	10CP1
	TRAFFIC SITUATION	1P 02	5	10 P1	1P	03	7	10 P1
00IV09	COPILLOT MONITOR	2K 58	0	10CP1	1P00IV01		5	10CP1
	TRAFFIC SITUATION	1P 02	5	10 P1	1P	03	7	10 P1
00IV10	COPILLOT MONITOR	2K 58	0	10CP2	1P00IV01		5	10CP1
	TRAFFIC SITUATION	1P 02	5	10 P1	1P	03	7	10 P1
00IV11	COPILLOT MONITOR	2K 58	0	10CP3	1P00IV01		5	10CP1
	TRAFFIC SITUATION	1P 02	5	10 P1	1P	03	7	10 P1
00IV12	COPILLOT MONITOR	2K 58	0	10CP4	1P00IV01		5	10CP1
	TRAFFIC SITUATION	1P 02	5	10 P1	1P	03	7	10 P1
00EV01	C/P EXT VIS SCAN	8A 10	0	10CP1			10	
00EV02	C/P EXT VIS SCAN	8A 10	0	10CP2			10	
00EV03	C/P EXT VIS SCAN	8A 10	0	10CP3			10	
00EV04	C/P EXT VIS SCAN	8A 10	0	10CP4			10	
00EV05	C/P EXT VIS SCAN	8A 11	0	10CP1			10	
00EV06	C/P EXT VIS SCAN	8A 11	0	10CP2			10	
00EV07	C/P EXT VIS SCAN	8A 11	0	10CP3			10	
00EV08	C/P EXT VIS SCAN	8A 11	0	10CP4			10	
00EV09	C/P EXT VIS SCAN	8A 12	0	10CP1			10	
00EV10	C/P EXT VIS SCAN	8A 12	0	10CP2			10	
00EV11	C/P EXT VIS SCAN	8A 12	0	10CP3			10	
00EV12	C/P EXT VIS SCAN	8A 12	0	10CP4			10	
00EV13	C/P EXT VIS SCAN	8A 13	0	10CP1			10	
00EV14	C/P EXT VIS SCAN	8A 13	0	10CP2			10	
00EV15	C/P EXT VIS SCAN	8A 13	0	10CP3			10	
00EV16	C/P EXT VIS SCAN	8A 13	0	10CP4			10	
00EV17	C/P EXT VIS SCAN	8A 14	0	10CP1			10	
00EV18	C/P EXT VIS SCAN	8A 14	0	10CP2			10	
00EV19	C/P EXT VIS SCAN	8A 14	0	10CP3			10	
00EV20	C/P EXT VIS SCAN	8A 14	0	10CP4			10	
00EV21	PILOT EXT VIS SCAN	8A 10	0	10 P1			10	
00EV22	PILOT EXT VIS SCAN	8A 10	0	10 P2			10	

00EV23	PILOT EXT VIS SCAN	8A	10	0	10	P3				10
00EV24	PILOT EXT VIS SCAN	8A	10	0	10	P4				10
00EV25	PILOT EXT VIS SCAN	8A	11	0	10	P1				10
00EV26	PILOT EXT VIS SCAN	8A	11	0	10	P2				10
00EV27	PILOT EXT VIS SCAN	8A	11	0	10	P3				10
00EV28	PILOT EXT VIS SCAN	8A	11	0	10	P4				10
00EV29	PILOT EXT VIS SCAN	8A	12	0	10	P1				10
00EV30	PILOT EXT VIS SCAN	8A	12	0	10	P2				10
00EV31	PILOT EXT VIS SCAN	8A	12	0	10	P3				10
00EV32	PILOT EXT VIS SCAN	8A	12	0	10	P4				10
00EV33	PILOT EXT VIS SCAN	8A	13	0	10	P1				10
00EV34	PILOT EXT VIS SCAN	8A	13	0	10	P2				10
00EV35	PILOT EXT VIS SCAN	8A	13	0	10	P3				10
00EV36	PILOT EXT VIS SCAN	8A	13	0	10	P4				10
00EV37	PILOT EXT VIS SCAN	8A	14	0	10	P1				10
00EV38	PILOT EXT VIS SCAN	8A	14	0	10	P2				10
00EV39	PILOT EXT VIS SCAN	8A	14	0	10	P3				10
00EV40	PILOT EXT VIS SCAN	8A	14	0	10	P4				10
00EV41	TDZ VIS LAND SCAN	8A	15	0	10	P1				10
00EV42	TDZ VIS LAND SCAN	8A	15	0	10	P2				10
00EV43	TDZ VIS LAND SCAN	8A	15	0	10	P3				10
SYD132	CROSS WPT DD132									10
SYD133	CROSS WPT DD133									10
SYD134	CROSS WPT DD134									10
SYD135	CROSS WPT DD135									10
	BEGIN 3 DEG DESCENT									10
SYA131	CROSS WPT AC131									10
SYA132	CROSS WPT AC132									10
SYSFAF	CROSS FINAL FIX									10
010001	COCKPIT SAFETY INSPECTION	4C	22	0	10	P1 7B	84	2.18		10 P1
		7B	57	3.08	10	P2 7B	53	5.16		10 P1
		7B	52	7.22	10	P1 7A	29	12		10 P1
		4D	47	14	10	P1 4D	05	15		10 P2
		4D	09	15.54	10	P3 6A	17	18		10 P1
		4E	16	20.17	10	P1 7P	48	22.67		10 P1
		7P	49	23.57	10	P1 7P	09	25.19		10 P2
		7P	05	25.73	10	P2 7P	08	26.27		10 P2
		7P	50	26.81	10	P2 7P	10	27.35		10 P1
		7P	46	27.89	10	P1 7P	15	28.43		10 P2
		7P	21	31.08	10	P2 7P	22	31.62		10 P2
		7P	52	32.16	10	P1 7P	40	32.66		10 P1
		7P	11	35	10	P1 7P	12	36.63		10 P1
		7L	19	40	10	P1 7L	13	50		10 P1
		7B	24	55	10	P1 7B	34	56		10 P1
		7B	44	57.98	10	P2 7B	25	58		10 P1
		8D	01	1	5	10	P1 7H	19	1	15 10 P1
		8D	02	1	23	10	P1 7H	20	1	30 10 P1
		7B	85	1	35	10	P1 7B	86	1	40 10 P2
		3F	03	1	45	10	P2 3F	02	145.69	10 P1
		4A	41	1	50	10	P2 4A	43	152.16	10 P2
		4A	38	152.48	10	P1 4A	61	153.48		10 P1
		4A	40	155.49	10	P2 7H	06	2	0	10 P1
		7H	21	203.50	10	P1 7K	11	2	7	10 P1
		8D	03	2	10	10	P1			10
		8C	03		0	10	P1			10
010002	PILOT SEATED	8C	03		0	10CP1	8C	02	3	10CP1
010003	CO-PILOT SEATED	4A	46	17	10CP1					10
010004	BEFORE START PROC -1	8B010001		0	10	P1 8B	08	20		10 P1
	-LIGHTS/SEATS/PEDAL	7G	31	25	10	P2 7G	46	25		10 P1
		8C	02	40	10	P1				10

010005	BEFORE START PROC -2	4A	46	53	10	P1			10
	-OXYGEN SYS	7H	17	0	10	P1 7H	14	5	10 P1
		7H	11	6.4	10	P1 7H	22	7.8	10 P1
		7H	10	11.80	10	P1 7H	23	13.2	10 P1
		7H	13	17.2	10	P1 7H	12	18.6	10 P1
		7H	24	20.1	10	P1 7H	11	25	10 P1
		7H	24	26.4	10	P1 7H	12	30.4	10 P1
		7H	08	32	10	P1 7H	25	33.3	10 P1
		7H	09	37.3	10	P1 1A	22	42	10 P2
		1F	06	44.35	10	P3 7H	18	50	10 P1
		8D	04	55	10	P1 8E	01	57	10 P1
		8E	02	59	10	P1			10
010007	BEFORE START PROC -3	4A	48	0	10	P1 4A	49	2.79	10 P1
	-FLIGHT CONTROL SYS	4A	50	4.81	10	P1 4A	51	6.85	10 P1
		4A	52	8.89	10	P1 4A	53	10.91	10 P1
010008	BEFORE START PROC -4	7C	67	0	10	P1 7C	68	1.14	10 P1
	-FUEL SYS	7C	49	1.97	10	P1 7C	57	2.52	10 P1
		7C	69	3.07	10	P1 7C	13	3.88	10 P1
		7C	24	4.43	10	P1 7C	26	5.88	10 P1
		7C	30	7.33	10	P1 7C	34	8.78	10 P1
		7C	38	10.23	10	P1 7C	42	11.68	10 P1
010009	BEFORE START PROC -5	7B	57	0	10	P2 7B	67	2.18	10 P2
	-ELECTRICAL SYS	7B	70	4.36	10	P1 7B	17	4.92	10 P2
		7B	88	6.88	10	P1 7B	89	8.21	10 P1
		7B	90	9.01	10	P1 7B	91	10.40	10 P1
010010	BEFORE START PROC -6	7G	07	0	10	P3 7G	09	2.73	10 P2
	-LIGHTS	7B	92	4.23	10	P1 7G	35	5.58	10 P1
		7G	38	7.48	10	P1 7G	02	8.02	10 P1
		7G	05	9.82	10	P1 7K	10	11.53	10 P1
010011	BEFORE START PROC -7	7K	07	0	10	P1 7K	11	4.22	10 P1
	-ANTI-ICE / HEAT	7J	24	5.36	10	P3 7J	26	6.73	10 P3
		7J	09	8.20	10	P4 7J	11	9.70	10 P4
		7J	05	11.20	10	P2 7J	07	11.73	10 P2
		7J	13	12.26	10	P1 7J	15	12.80	10 P1
		7J	17	13.34	10	P1 7J	19	13.34	10 P1
010012	BEFORE START PROC -8	7A	01	0	10	P4 7A	03	1.46	10 P2
	-HYDRAULIC SYS	7A	09	2.92	10	P1 7A	11	3.47	10 P1
		7A	05	4.02	10	P3 7A	07	5.48	10 P3
		7A	12	6.94	10	P1 7A	14	7.49	10 P1
		7A	19	8.04	10	P1 7A	20	10.28	10 P2
		7A	21	12.52	10	P1			10
010013	BEFORE START PROC -9	7E	01	0	10	P1 7E	02	1.27	10 P2
	-PRESSURIZATION/AIR-	7D	41	3.32	10	P2 7D	43	6.53	10 P1
	CONDITIONING	7D	50	9.22	10	P3 7D	54	11.34	10 P3
		7D	02	15	10	P2 7D	01	17.70	10 P1
		7D	05	20	10	P3 7D	19	21.52	10 P2
		7D	63	23.04	10	P1 7D	64	24.39	10 P1
		7D	65	25.70	10	P1 7D	66	26.47	10 P1
		7E	05	30	10	P1 7E	06	32.50	10 P1
		7E	07	33	10	P2 7E	08	33.93	10 P1
		7E	11	36	10	P2 7E	09	39	10 P2
		7E	10	40.62	10	P1 7E	16	42	10 P2
		7E	18	44.69	10	P2			10
010014	BEFORE START PROC-10	7G	24	0	10	P2 7M	12	1.5	10 P2
	-LIGHTS/ENG START/	7M	13	3.5	10	P2 3R	47	5	10 P1
	FLIGHT DIREC	3R	48	6.5	10	P2 3V	19	7.48	10 P1
010015	BEFORE START PROC-11	5K	01	0	10	P1 5K	02	3.5	10 P1
	-COMPASS/ADF/RMI/CI	5K	03	5	10	P2 1P010001		5	10 P1
		1P	06	5	10	CP1 1P	03	7.5	10 CP1
		5D	23	6.75	10	P1 5E	21	9	10 CP1

	5G	03	8.98	10	P1	5H	01	11.26	10CP1
	3S	14	11.23	10	P2	3S	14	13.59	10CP2
010016	BEFORE START PROC-12	1P010002	0	10CP1	1P	06	0	10	P1
	-ALTIMETER	1P	03	2.5	10	P1	3H	03	10
		3H	04	3.28	10	P2	3H	03	3.5
		3H	04	3.78	10CP2	3H	04	7	10CP1
		3H	04	7.5	10	P1			10
010017	BEFORE START PROC-13	3L	01	0	10	P3	3L	01	0
	-VSI/MACH AIRSPEED	1P010003	2.31	10CP1	1P	06	2.31	10	P2
		1P	03	8.31	10	P1	3A	02	8.81
		3A	02	8.81	10CP1	3A	05	11.38	10
		3A	05	11.38	10CP2	3A	04	13.95	10
		3A	04	13.95	10CP1	3A	07	16.52	10
		3A	07	16.52	10CP3				10
010018	BEFORE START PROC-14	3N	02	0	10	P3	3N	01	2.24
	-CLOCKS/STDBY HOR	3N	02	0	10CP3	3N	01	2.24	10CP2
		3R	49	5	10	P1	3P	01	8
		3P	04	10.7	10	P1			10
010019	BEFORE START PROC-15	7C	72	0	10	P3	7C	09	.1
	-FUEL QTY TEST	7C	10	2.12	10	P1	7C	11	4.14
010020	BEFORE START PROC-16	1P010004	0	10	P1	1P	02	0	10CP1
	-EPR/OIL QTY/VIBR	8B	04	1.5	10CP1	1P010005	03	3.5	10CP1
		1P	06	3.5	10CP1	1P	03	6	10
		7F	25	6.5	10	P1	7F	26	9.03
		7F	27	9.33	10	P1	7F	30	11.33
		7F	28	13.35	10	P3	7F	29	13.65
		7F	04	17	10	P4	7F	11	17.2
		7F	19	19.25	10	P1	7F	01	23
		7F	03	24.91	10	P3	7F	12	26.35
		7F	20	28.37	10	P3	7F	02	30.39
		7F	03	32.30	10	P3	7F	12	33.74
		7F	20	35.76	10	P3			10
010021	BEFORE START PROC-17	4D	48	0	10	P1	4D	38	1.04
	-ANTI-SKID/ANTI-BRK	4D	49	1.58	10	P1	4D	40	2.66
010022	BEFORE START PROC-18	6A	10	0	10	P2	1N	02	2.38
	-CENTER STAND ITEMS	4F	12	4.31	10	P1	4C	23	6.31
		4B	04	7.51	10	P1	7M	14	10.05
		4D	50	10.83	10	P1	4G	15	11.80
010023					10				10
010024					10				10
010025					10				10
010026					10				10
010027					10				10
010028					10				10
010029					10				10
010030	BEFORE START PROC-2C	7H	17	0	10CP1	7H	14	5	10CP1
	-OXYGEN SYS	7H	11	6.4	10CP1	7H	22	7.8	10CP1
		7H	10	11.8	10CP1	7H	23	13.2	10CP1
		7H	13	17.2	10CP1	7H	12	18.6	10CP1
		7H	24	20.1	10CP1	7H	11	25	10CP1
		7H	24	26.4	10CP1	7H	12	30.4	10CP1
		7H	08	32	10CP1	7H	25	33.3	10CP1
		7H	09	37.3	10CP1	1B	23	42	10CP2
		1F	06	44.35	10CP1	7H	18	50	10CP1
		8D	04	1	0	10CP1	8E	01	1
		8E	02	1	8	10CP1			10
010031	DETERMINE EPR, V1,	8B010004	0	10CP1	8B010006			3	10CP1
	AND V-REF BUG SET	8B	01	33	10CP2	8B010007		35	10CP1
	VALUES	8B	01	1	5	10CP2	8B010005	1	7
010032	TUNE COMM RADIOS	8B010002	0	10CP1					10

010033 SET VHF-1L TO	1A	01	0	10CP3	1A	02	0	10CP2
CLEARANCE DELIVERY	1A	03	2.98	10CP1	1A	05	5	10CP2
121.65 AND REQUEST	1A	17	6.43	10CP2	1A	19	8.43	10CP4
CLEARANCE	1A	24	10	10CP1	1A	11	11.42	10CP1
	1P010055		11.42	10CP1	1A	14	18	10CP1
	1P010056		18	10CP1	1P010057		22.26	10CP1
	1P010058		27.94	10CP1	1P010059		33.62	10CP1
	8B	01	24	10CP1	1A	24	37	10CP2
	1A	11	38.42	10CP2	1P010060		38.42	10CP1
	1P010061		42.08	10CP1	1P010073		46.96	10CP1
	1A	14	49.4	10CP2	1P010062		49.4	10CP1
	1P010063		52.9	10CP1	8B	01	51	10CP2
	1A	24	56	10CP3	1A	11	57.42	10CP1
	1P010064		57.42	10CP1			10	
010034 SET VHF-2R TO ATIS	1B	07	0	10CP3	1B	08	0	10CP2
-111.1	1B	09	2.88	10CP1	1B	06	4.86	10CP1
	1B	11	6.31	10CP2	1B	04	8	10CP1
	1B	18	6.31	10CP1	1P010065		6.31	10CP1
	1P010066		10.39	10CP1	1P010067		15.83	10CP1
	1P010068		21.27	10CP1	1P010069		26.71	10CP1
	1P010074		32.15	10CP1	8B	01	11	10CP1
	1B	12	37	10CP4			10	
010035 SET XPNDR CODE TO	1N	06	0	10CP3	1N	05	0	10CP1
2213	1N	08	2.80	10CP1	1N	06	5.41	10CP1
	1N	18	5.41	10CP1			10	
010036 SET RADAR	6A	02	0	10CP2	6A	14	2.66	10CP1
	6A	01	5.03	10CP1	6A	09	9.14	10CP1
010037 SET VHF-1R TO GROUND	8B010002		0	10CP1	1A	07	5	10CP3
CONTROL -121.9	1A	08	5	10CP2	1A	09	7.98	10CP1
010038 SET VHF-2L TO			10				10	
ATLANTA TOWER-119.5	1B	01	0	10CP2	1B	02	0	10CP2
	1B	03	2.9	10CP1			10	
010039 SET NAV-1 TO ATLANTA	8B010002		0	10CP1	5U	01	5	10CP3
VOR -115.6	5U	02	5	10CP3	5U	03	8	10CP2
	5U	11	11	10CP2	5U	12	13	10CP2
010040 SET NAV-2 TO SPAR-	5V	01	0	10CP3	5V	02	0	10CP2
TANBURG VOR -115.7	5V	03	2.93	10CP1	5V	11	5	10CP1
	5V	12	7.5	10CP2			10	
010041 SET ADF-1 TO LAKE-	8B010002		0	10CP1	5D	19	5	10CP3
SIDE LOM	5D	02	8	10CP3	5D	01	8	10CP2
010042 BEFORE START PROC-19	7G	14	0	10 P1	4G	07	5	10 P1
-LITES/TRIM/PAPERS	4G	01	10	10 P1	4G	02	15	10 P3
	8B010003		20	10 P1			10	
010043			10				10	
010044			10				10	
010045			10				10	
010046			10				10	
010047			10				10	
010048			10				10	
010049			10				10	
010050 BEFORE START CHECK-	1P010006		0	10 P1	1P	02	0	10CP2
LIST - 1	1P	03	2	10CP1	8B	02	3	10CP3
	8B	05	9	10CP2	8B	02	14	10CP1
	1P010007		16	10CP1	1P	02	16	10 P1
	1P010008		19	10 P1	1P	06	19	10CP3
	8B	03	22	10CP1	1P010009		24	10CP1
	1P	02	24	10 P4	1P010010		26	10 P1
	1P	06	26	10 P3	8B	03	27	10CP1
	1P010011		29	10CP1	1P	02	29	10 P4
	1P010012		30	10 P1	1P	06	30	10CP3

010051 BEFORE START CHECK-	8B	03	0	10CP1	1P010013	2	10CP1
LIST - 2	1P	10	2	10 P1	4A 54	3	10 P1
	1P010014		4.21	10 P1	1P 06	4.21	10CP4
	8B	03	5	10CP2	1P010015	7	10CP1
	1P	06	7	10 P4	7C 09	7.5	10 P2
	7C	10	9.77	10 P1	7C 11	11.79	10 P1
	7C	70	13.89	10 P1	1P010016	15.48	10 P1
	1P	07	15.48	10CP1	8B 03	20	10CP1
	1P010017		22	10CP1	1P 10	22	10 P2
	7B	93	22.7	10 P1	1P010014	24.5	10 P1
	1P	06	24.5	10CP4	8B 03	25	10CP1
	1P010018		27	10CP1	1P 10	27	10 P3
	7G	38	28.2	10 P1	1P010019	29	10 P1
	1P	10	29	10CP4	8B 03	30	10CP1
	1P010020		32	10CP1	1P 02	32	10 P2
	7G	48	34	10 P1	1P010021	35.27	10 P1
	1P	06	35.27	10CP4		10	
010052 BEFORE START CHECK-	8B	03	0	10CP1	1P010022	2	10CP1
LIST - 3	1P	10	2	10 P1	7A 32	3	10 P1
	1P010026		5	10 P1	1P 07	5	10CP2
	8B	03	6	10CP1	1P010023	8	10CP1
	1P	02	8	10 P2	7D 67	10	10 P1
	7D	63	11.35	10 P1	7D 64	12.7	10 P1
	7D	05	14.01	10 P1	7D 66	14.78	10 P1
	1P010024		15.55	10 P1	1P 07	15.55	10CP3
	8B	03	18	10CP1	1P010025	20	10CP1
	1P	11	20	10 P1	4H 04	20.5	10 P1
	1P010027		22	10 P1	1P 07	22	10CP4
	8B	03	23	10CP1	1P010028	25	10CP1
	1P	11	25	10 P2	1P010029	26	10 P1
	1P	06	26	10CP3	8B 03	27	10CP1
	1P010030		29	10CP1	1P 11	29	10 P3
	4D	38	30	10 P1	1P010014	31	10 P1
	1P	06	31	10CP4	8B 03	32	10CP1
	1P010031		34	10CP1	1P 11	34	10 P3
	4D	49	35	10 P1	1P010032	30.5	10 P1
	1P	06	36.5	10CP4		10	
010053 BEFORE START CHECK-	8B	03	0	10CP1	1P010033	2	10CP1
LIST - 4	1P	02	2	10 P2	1P010034	4	10CP1
	1P	10	4	10 P3	8B 03	5.5	10CP1
	1P010035		7.5	10CP1	1P 11	7.5	10 P2
	4F	12	9	10 P1	1P010036	11	10 P1
	1P	06	11	10CP3	8B 03	12	10CP1
	1P010037		14	10CP1	1P 10	14	10 P2
	4D	27	14.7	10 P1	1P010038	18	10 P1
	1P	06	18	10CP4	8B 03	18.5	10CP1
	1P010039		19.5	10CP1	1P 11	19.5	10 P4
	4G	08	21.2	10 P2	4G 10	22.45	10 P2
	1P010026		24	10 P1	1P 07	24	10CP2
	8B	03	25	10CP1	1P010040	27	10CP1
	1P	02	27	10 P2	7P 14	29	10 P1
	1P010010		30.5	10 P1	1P 06	30.5	10CP3
010054 BEFORE START CHECK-	8B	03	0	10CP1	1P010041	2	10CP1
LIST - 5	1P	02	2	10 P1	1P010042	3.5	10 P1
	1P	07	3.5	10CP2	8B 03	4.5	10CP2
	1P010043		7	10CP1	1P 11	7	10 P2
	1P010044		8	10CP1	1P 07	8	10 P2
	8B	03	9	10CP1	1P010045	11	10CP1
	1P	02	11	10 P1	1P010038	13.5	10CP1
	1P	06	13.5	10 P4		10	

010055	BEFORE START CHECK-	1P010052	0	10 P1 1P	11	0	10CP4
	LIST - 6	8B 03	2	10CP1 1P010046		4	10CP1
		1P 02	4	10 P4 7D	06	5.3	10 P3
		7D 20	7.95	10 P2 1P010047		10	10 P1
		1P 08	10	10CP1 8B	03	11	10CP1
		1P010048	13	10CP1 1P	11	13	10 P3
		7D 01	14	10 P1 1P010049		16.5	10 P1
		1P 08	16.5	10CP2 8B	03	18.2	10CP1
		1P010050	20.2	10CP1 1P	10	20.2	10 P3
		7G 25	22	10 P1 1P010014		24.5	10 P1
		1P 06	24.5	10CP4 8B	03	25	10CP1
		1P010051	27	10CP1 1P	11	27	10 P4
		8B 08	29	10CP1		10	
010056	CONTACT GROUND CON-	1A 06	0	10 P3 1A	25	2.3	10 P1
	TROL FOR PUSHBACK	1A 11	2.3	10 P4 1P010070		2.3	10 P1
	CLEARANCE	1P010071	6.3	10 P1 1A	14	11	10 *2
		1P010072	11	10 *1 1P010075		15.5	10 *1
		1A 25	18	10 P2 1A	11	18	10 P3
		1P010064	18	10 P1		10	
010057	PUSHBACK PROCEDURE-1	1F 07	0	10 P1 1F	06	2.44	10 P3
		1H 01	4.43	10 P1 1A	20	10	10 P2
		1F 11	10	10 P1 1P010053		10	10 P1
		1F 09	12	10 P1 1P010054		12	10 P1
		7A 02	13	10 P4 7A	04	15.75	10 P3
		4D 52	17.5	10 P1 8A	03	17.5	10 P4
010058	AIRCRAFT PUSHED BACK						
	FROM GATE						
010059	AIRCRAFT STOPPED ON						
	RAMP						
010060	PUSHBACK PROCEDURE-2	4D 28	0	10 P1			
010061	TOWBAR DISCONNECTED						
	AND TUG DRIVEN AWAY						
010062	PUSHBACK PROCEDURE-3	1P030001	0	10 *1 1F	09	0	10 P2
020001	BEFORE START PROC-1A	4A 70	0	10 P1			
	-LITES/SEATS/PEDALS						
020002	BEFORE START PROC -	7G 24	0	10 P2 7M	12	1.5	10 P2
	10A -LITES/ENG STRT	7M 13	3.5	10 P2			
020003	BEFORE START PROC -	2J 23	0	10 P1 2J	24	2.27	10 P1
	10B -EADI	2J 26	4.54	10 P2 2J	32	5.87	10 P2
020004	BEFORE START PROC -	2K 03	0	10 P1 2K	04	2.64	10 P1
	10C -MFD - CAPT.	2K 02	5.64	10 P2 2K	07	7.61	10 P2
		2K 18	9.53	10 P1 2K	19	11.6	10 P3
		2K 25	12.98	10 P1			
020005	BEFORE START PROC -	2H 52	0	10 P1 2H	53	0	10 P1
	10D -AGCS	2H 54	2	10 P1 2H	53	2	10 P1
		2H 02	4	10 P1 2H	09	5.05	10 P1
020006	BEFORE START PROC -	8B020001	0	10 P1 8B020002		3	10 P1
	15A -FUEL QTY/V-REF	7C 02	6	10 P1 7C	03	6	10 P1
		7C 07	10	10 P1 7C	01	11.8	10 P1
		8B020003	14.1	10 P1			
020007	BEFORE START PROC -	2J 36	0	10 P1 2J	37	2	10 P1
	18A -CRTAS	2K 54	4	10 P1 2K	55	6	10 P1
		2L 02	8	10 P1			
020008	CO-PILOT SEATED	8C 03	0	10CP1 8C	02	3	10CP1
		4A 46	13	10CP1 4A	70	16	10CP1
		8E 03	19	10CP1		10	
020009	SET VHF-1L TO	1Q 01	0	10CP4 1Q	02	0	10CP2
	CLEARANCE DELEVRY	1Q 03	3	10CP2 1Q	05	4.97	10CP2
	-121.65	1Q 12	6.42	10CP2 1Q	11	8.76	10CP2
		1Q 14	11.56	10CP3 1Q	15	11.56	10CP1

	1P010055	11.56	10CP1	1Q	16	18	10CP1
	1P020001	18	10CP1	1P020002		22	10CP1
	1P020003	26	10CP1	1Q	14	30	10CP4
	1Q	15	30	10CP2	1P020004	30	10CP1
	1P020005	34	10CP1	1P020006		38	10CP1
	1Q	16	43	10CP2	1P010002	43	10CP1
	1P010063	46.5	10CP1	1Q	23	50	10CP1
	1Q	15	50	10CP3	1P010064	50	10CP1
020010 SET VHF-2R TO ATIS	1R	07	0	10CP3	1R	08	0
-111.1	1R	09	2.9	10CP2	1R	12	4.48
	1R	06	5.91	10CP2	1R	04	7.38
	1R	35	30	10CP3	1P010065		8.96
	1P010066	13.04	10CP1	1P010067		18.48	10CP1
	1P010068	23.92	10CP1	1P010069		29.36	10CP1
	1P010074	34.80	10CP1	8B	01	11	10CP1
	1R	13	39	10CP2			10
020011 SET VHF-1R TO GROUND	8B010002	0	10CP1	1Q	07	5	10CP3
CONTROL -121.9	1Q	08	5	10CP4	1Q	09	7.9
020012 SET VHF-2L TO	1Q	01	0	10CP4	1Q	02	0
ATLANTA TOWER-119.5	1Q	03	3	10CP2			10
020013 SET NAV-1 TO ATLANTA	8B010002	0	10CP1	5W	01	5	10CP3
VOR -115.6	5W	02	5	10CP2	5W	03	7.37
	5W	05	9	10CP2			10
020014 SET NAV-2 TO ATLANTA	5X	01	0	10CP3	5X	02	0
VOR -115.6	5X	03	2.95	10CP2	5X	05	4.6
020015 SET NAV-3 TO AUGUSTA	8B010002	0	10CP1	5Y	01	5	10CP3
VOR -113.9	5Y	02	5	10CP1	5Y	03	8.12
	5Y	05	9.8	10CP1			10
020016 SET CRTAS	2J	36	0	10CP1	2J	37	2
	2K	54	4	10CP1	2K	55	6
	2L	02	8	10CP1			10
020017 NCDU TEST	2L	01	0	10CP1	2L	09	2.67
	2L	01	7.67	10CP1			10
020018 SYSTEM STATUS CHECK	2L	68	0	10CP3	2L	16	1.46
020019 PRE-FLIGHT FLIGHT							10
PLAN INITIALIZATION							10
PROCEDURE							10
020020 MFD SET-UP	2K	02	0	10CP4	2K	18	2.67
	2K	19	4.05	10CP1	2K	21	5.43
	2K	22	6.81	10CP2	2K	07	8.14
020021 INITIALIZE PAGE -	2L	63	0	10CP1	2L	19	1.48
TIME OF DAY INPUT	3N	02	3.82	10CP3	2L	28	6.06
	2L	20	15.51	10CP2			10
020022 TIME OF DAY-08:15:45	2L	35	7.41	10CP1	2L	33	8.76
	2L	26	10.11	10CP3	2L	30	11.46
	2L	29	12.81	10CP1	2L	30	14.16
020023 INITIALIZE PAGE -	2L	19	0	10CP1	2L	26	2.34
ORIGIN INPUT	2L	07	9.41	10CP2	2L	20	11.46
020024 ORIGIN NAME - KATL	2L	47	3.79	10CP1	2L	37	5.14
	2L	56	6.6	10CP2	2L	48	8.06
020025 INITIALIZE PAGE -	2L	19	0	10CP2	2L	27	2.08
DESTINATION INPUT	2L	07	9.13	10CP2	2L	20	11.20
020026 DESTINATION NAME-	2L	47	3.56	10CP1	2L	40	4.88
KDCA	2L	39	6.23	10CP1	2L	37	7.68
020027 INITIALIZE PAGE-	2L	19	0	10CP2	3H	04	2.08
BAROMETER VALUE	2L	29	4.45	10CP2	2L	07	12.66
	2L	20	14.74	10CP3			10
020028 BAROMETER VALUE -	2L	27	5.91	10CP1	2L	34	7.26
29.86	2L	36	8.61	10CP1	2L	33	9.96
	2L	31	11.31	10CP1			10

020029	REVIEW NEW DATA ON INITIALIZE PAGE FOR ACCURACY	2L	07	0	10CP3			10
					10			10
					10			10
020030	SELECT ATC CLEARANCE PAGE	2L	64	0	10CP1 2L	08	2.03	10CP2
					10			10
020031	ATC CLEARANCE PAGE- SID INPUT	2L	51	0	10CP2 2L	08	8.35	10CP1
		2K	14	10.69	10CP1 2L	20	12.96	10CP3
020032	SID NAME - SOC9L	2L	55	1.46	10CP1 2L	51	2.81	10CP1
		2L	39	4.16	10CP1 2L	34	5.54	10CP1
		2L	48	6.89	10CP2			10
020033	DETERMINE NAME OF EXIT WAYPOINT ON SID SOC9L	2K	14	0	10CP1			10
					10			10
					10			10
020034	ATC CLEARANCE PAGE- WAYPOINT INPUT	2L	37	0	10CP2 2L	08	6.96	10CP1
		2L	20	9.30	10CP3			10
020035	WAYPOINT NAME - SID3	2L	55	1.46	10CP1 2L	45	2.81	10CP2
		2L	40	4.16	10CP2 2L	28	5.48	10CP1
020036	ATC CLEARANCE PAGE- AIRWAY INPUT	2L	38	0	10CP2 2L	08	8.32	10CP1
		2K	17	10.66	10CP1 2L	20	12.93	10CP3
020037	AIRWAY NAME - 816R	2L	33	1.48	10CP1 2L	26	2.92	10CP3
		2L	31	4.27	10CP1 2L	54	5.62	10CP1
020038	DETERMINE NAME OF ENTRANCE WPT ON STAR JASON01	2K	17	0	10CP1			10
					10			10
					10			10
020039	ATC CLEARANCE PAGE - STAR INPUT	2L	52	0	10CP2 2L	08	7.08	10CP1
		2K	17	9.42	10CP1			10
020040	STAR NAME - WOOD	2L	59	1.46	10CP2 2L	51	2.92	10CP1
		2L	51	4.27	10CP1 2L	40	5.62	10CP3
020041	CHANGE MFD MAP SCALE TO 32 NM	2K	10	0	10CP4			10
					10			10
020042	SELECT FLIGHT PLAN PAGE 2	2L	65	0	10CP1 2L	09	2.03	10CP2
		2L	65	4.11	10CP3 2L	10	5.46	10CP2
020043	REVIEW PROVISIONAL FLIGHT PLAN DATA	2L	09	0	10CP2 2K	17	2.08	10CP1
		2L	24	4.35	10CP2			10
020044	ACCEPT PROVISIONAL FLIGHT PLAN	2L	21	0	10CP4 2L	09	1.52	10CP2
		2K	17	3.6	10CP1 1P020007		5.87	10CP1
		1P	17	5.87	10 P4			10
020045	BEFORE START CHECK- LIST - 5A	8B	03	0	10CP1 1P020008		2	10CP1
		1P	10	2	10 P1 1P020009		3	10CP1
		1P	06	3	10 P3 8B 03		4	10CP1
		1P020010		6	10CP1 1P 10		6	10 P4
		1P020009		6.6	10CP1 1P 06		6.6	10 P3
		8B 03		7	10CP1 1P020011		9	10CP1
		1P 10		9	10 P1			10
		1P020009		10	10CP1 1P 06		10	10 P3
		8B 03		11	10CP1 1P020012		13	10CP1
		1P 10		13	10 P1 1P020013		14	10 P1
		1P 08		14	10CP3			10
020046	CONTACT GROUND CONTROL FOR PUSHBACK CLEARANCE	1Q	06	0	10CP2 1Q 24		1.45	10CP1
		1Q	15	1.45	10CP4 1P010070		1.45	10CP1
		1P010071		5.45	10CP1 1Q 16		9	10 *3
		1P010072		9	10 *1 1P010075		13.50	10 *1
		1Q 24		15	10CP2 1Q 15		15	10CP3
		1P010064		15	10CP1			10
020047	WAYPOINT NAME - AGE1	2L	37	1.46	10CP1 2L	43	2.81	10CP2
		2L	41	4.27	10CP1 2L	26	5.62	10CP3
030001	ENGINE NO.2 START-UP	1A	25	0	10 P3 1P030002		2.35	10 P1
		1F	11	2.35	10 P2 1F 09		5	10 P2
		1P030001		5	10 P1 7M 05		7	10 P3
		7F 24		10.54	10 P3 7F 22		20.54	10 P2

	7M	09	23.06	10 P1	7F	17	25.57	10 P2
	7F	32	27.82	10 P1	7F	34	29.84	10 P1
	7M	15	31.63	10 P1	7F	24	34.15	10 P2
	7F	32	36.67	10 P1	7F	34	38.69	10 P1
	7F	30	40.71	10 P1	7F	22	42.95	10 P1
	7F	17	44.97	10 P1	1F	11	2.35	10CP2
	7F	24	12	10CP2	7F	22	16	10CP1
	7F	17	25	10CP1	7F	32	28	10CP1
	7F	34	31	10CP1	7F	24	35	10CP1
	7F	32	37.02	10CP1	7F	34	39.04	10CP1
	7F	30	41.06	10CP1	7F	22	43.30	10CP1
	7F	17	45.32	10CP1	7F	24	47.37	10CP1
	7F	32	49.39	10CP1	7F	34	51.41	10CP1
030002 ENGINE NO.1 START-UP	1A	25	0	10 P3	1F	11	1.45	10 P2
	1P030003		1.45	10 P1	1F	09	5	10 P2
	1P030001		5	10 P1	7M	02	7	10 P3
	7F	23	10.54	10 P3	7F	21	20.54	10 P2
	7M	07	23.06	10 P1	7F	09	25.57	10 P1
	7F	31	27.62	10 P1	7F	33	29.64	10 P1
	7M	16	31.66	10 P1	7F	23	32.96	10 P2
	7F	31	35.48	10 P1	7F	33	37.50	10 P1
	7F	25	39.52	10 P1	7F	21	41.76	10 P1
	7F	09	43.78	10 P1	7F	23	11	10CP3
	7F	21	21	10CP2	7F	09	23.52	10CP1
	7F	31	25.57	10CP1	7F	33	27.59	10CP1
	7F	23	29.61	10CP1	7F	32	31.63	10CP1
	7F	31	33.65	10CP1	7F	25	35.67	10CP1
	7F	21	37.91	10CP1	7F	09	39.93	10CP1
030003 AFTER START PROC.	7B	32	0	10 P1	7B	42	1.72	10 P1
	7B	31	3.44	10 P1	7B	41	4.03	10 P1
	7J	24	4.62	10 P1	7J	26	7.37	10 P2
	7J	28	8.79	10 P1	7J	30	9.92	10 P1
	7J	32	11.05	10 P1	7J	34	12.18	10 P1
	7J	36	13.32	10 P1	7J	38	14.46	10 P1
	7Q	10	15.6	10 P1	7Q	13	17.15	10 P2
	7Q	16	18.27	10 P1	7Q	19	19.39	10 P1
	7Q	22	20.59	10 P1	7Q	25	21.03	10 P1
	7Q	28	22.75	10 P1	7Q	31	23.87	10 P1
	7D	05	24.99	10 P4	7D	19	27.68	10 P2
	7D	18	29.2	10 P2	7D	34	30.73	10 P1
	7L	11	31.01	10 P3	7E	15	33.58	10 P3
	7M	03	36.64	10 P4	7M	06	38.38	10 P4
	7M	08	40.12	10 P1	7M	10	43.12	10 P2
030004 AFTER START CHECK- LIST - 1	1P030004		0	10 P1	1P	02	0	10CP1
	8B	02	1.5	10CP3	8B	03	7.4	10CP1
	1P030005		9.4	10CP1	1P	11	9.4	10 P2
	7B	31	10.2	10 P2	7B	41	11.12	10 P1
	1P030006		12	10 P1	1P	08	12	10CP3
	8B	03	13.5	10CP1	1P030007		15.5	10CP1
	1P	11	15.5	10 P3	7J	45	16.4	10 P1
	7J	46	17.87	10 P1	1P010014		19	10 P1
	1P	06	19	10CP4	8B	03	19.5	10CP1
	1P030008		21.50	10 P1	1P	11	21.5	10 P3
	1P030009		22.40	10 P1	1P	06	22.4	10CP3
030005 AFTER START CHECK- LIST - 2	8B	03	0	10CP1	1P030010		2	10CP1
	1P	10	2	10 P3	7D		3.6	10 P1
	7D	22	4.6	10 P1	7E	35	5.6	10 P1
	1P030011		6.3	10 P1	1P	09	6.3	10CP1
	8B	03	2.6	10CP1	1P030012		9.6	10CP1
	1P	11	9.6	10 P3	7M	11	10.5	10 P1

NO	DESCRIPTION	TIME	UNIT	TIME	UNIT	TIME	UNIT	TIME	UNIT
030006	AFTER START CHECK- LIST - 3	1P030013	8B 03	11.1	10 P1 1P	08	11.1	10CP4	
		1P 11	0	10CP1	1P030014	2	10CP1		
		1P030015	1P 11	2	10 P2 7L	20	3	10 P1	
		8B 03	3.75	10 P1 1P	06	3.75	10CP4		
		1P 10	4.25	10CP1	1P030016	6.25	10CP1		
		1P030017	1P 10	6.25	10 P1 7M	14	2.25	10 P1	
		8B 03	8.55	10 P1 1P	06	8.55	10CP4		
		1P 12	9.05	10CP1	1P030018	11.05	10CP1		
030007	ENGINE INSTRUMENT SCAN	7F 25	11.05	10 P2 8B	08	12.45	10CP1		
		7F 21	0	10CP4	7F 30	0	10CP3		
		7F 31	.44	10CP3	7F 22	.44	10CP3		
		7F 23	.88	10CP2	7F 32	.88	10CP2		
		7F 33	1.32	10CP4	7F 24	1.32	10CP4		
		7F 09	1.76	10CP2	7F 34	1.76	10CP2		
		7F 10	2.2	10CP3		10			
		7F 11	2.64	10CP4	7F 18	2.64	10CP4		
		7F 12	3.08	10CP3	7F 19	3.08	10CP4		
040001	TAXI PROCEDURE - 1 -TAXI CLEARANCE	1A 20	3.52	10CP4	7F 20	3.52	10CP4		
		1P040035	0	10 P1 1A	12	0	10 P1		
		1P040036	5	10 P1 1A	14	5	10 *3		
		1A 10	13	10 P2 1A	11	13	10 P1		
040002	TAXI PROCEDURE - 1 -TAXI FROM GATE TO TAXIWAY D	1P040038	13	10 P1 1P040039		16.75	10 P1		
		8A 02	0	10 P2 4D	52	0	10 P1		
		4M 02	0	10 P3 4B	03	1	10 P4		
		1P070011	5	10 P1 1P	10	5	10CP1		
		4E 09	6	10CP3	4E 15	10	10CP3		
		4E 16	13	10CP1	3V 18	20	10CP1		
		3V 26	22.07	10CP1	7A 28	26	10CP1		
		7A 33	28.28	10CP1	4A 21	30	10CP1		
		4A 22	32	10CP1		10			
040003	TAXI PROCEDURE - 0 -TURN ONTO TAXIWAY D AND TAXI TO HOLD POINT SHORT OF RWY 08	4M 01	15	10 P2 4A	58	15	10 P1		
		8A 02	0	10 P3 4M	02	0	10 P4		
		4B 03	10	10 P1		10			
		4D 28	1	09	10 P2 4B	08	1	12	10 P1
					10	10			
040004	HOLD SHORT OF RWY 08 FOR DEPARTING AND ARRIVING TRAFFIC				10	10			
040005	TAXI PROCEDURE - 4 -CROSS RWY 08 AND TAXI TO HOLD POINT AT TAXIWAY C JUNCTION	1A 14	0	10 P4 1P040001		0	10 *1		
		1A 10	4	10 P3 1A	11	4	10 P3		
		1P040003	4	10 P1 4D	52	8	10 P1		
		4B 03	8	10 P2 8A	02	8	10 P3		
		4M 03	8	10 P1 1A	15	30	10 *1		
		1P040030	30	10 *1 1P040031		33	10 *1		
		1A 11	35	10 P3 1P040003		35	10 P1		
		4D 28	53	10 P2 4B	03	53	10 P1		
040006	HOLD AT JUNCTION OF TAXIWAYS C AND								

	AND TAXI INTO RWY	4D	28	1	40	10 P2	4B	03	1	40	10 P2
	9L HOLD AREA	4M	01	1	40	10 P4	4D	27	1	50	10 P1
040010	TAXI PROCEDURE - 1A	1Q	24		0	10CP3	1Q	28		0	10CP1
	-TAXI CLEARANCE	1P040035			0	10CP1	1Q	16		4	10CP2
		1P040036			4	10CP1	1P040037		7.5	10CP1	
		1Q	14		11	10CP3	1Q	15		11	10CP1
		1P040038			11	10CP1	1P040039		14.75	10CP1	
040011	TAXI PROCEDURE - 4A	1Q	16		0	10CP4	1P040001		0	10CP1	
		1Q	23		4	10CP1	1Q	15		4	10CP3
		1P040003			4	10CP1	4D	52		8	10 P1
		4B	03		8	10 P2	8A	02		8	10 P4
		4M	03		8	10 P1	1Q	30		30	10CP1
		1P040030			30	10CP1	1P040031		33	10CP1	
		1Q	23		35	10CP1	1Q	15		35	10CP3
		1P040003			35	10CP1	4D	28		53	10 P2
		4B	03		53	10 P1				10	
040012	TAXI PROCEDURE - 5A	4D	52		0	10 P1	4B	03		1	10 P2
		8A	04		0	10 P1	4M	03		4	10 P2
		1Q	30		30	10CP2	1P040032		30	10CP1	
		1P040033			33	10CP1	1Q	24		35	10CP4
		1Q	28		35	10CP2	1P040034		35	10CP1	
		1R	12		40	10CP2	4D	28	1	44	10 P2
		4B	03	1	44	10 P2				10	
070001	BEFORE TAKEOFF	1P070012			0	10 P1	1P	02		0	10CP1
	CHECKLIST - 1	8B	02		1.5	10CP3	8B	03		8	10CP1
		1P070013			10	10 P1	1P	10		10	10 P1
		1P070014			11	10CP1	1P	07		11	10CP4
		8B	03		12	10CP1	1P070015		14	10 P1	
		1P	10		14	10 P1	1P070014		15	10 P1	
		1P	07		15	10CP4	8B	03		16	10CP1
		1P070016			18	10CP1	1P	10		18	10 P4
		4E	16		18.6	10CP1	4N	05		21.1	10CP2
		1P070017			22.5	10CP1	1P	06		22.5	10CP3
070002	BEFORE TAKEOFF	8B	03		0	10CP1	1P070018		2	10 P1	
	CHECKLIST - 2	1P	10		2	10 P3	4G	03		3.2	10 P1
		1P070029			5.7	10CP1	1P	09		5.7	10CP2
		8B	03		7.1	10CP1	1P070019		9.1	10 P1	
		1P	10		9.1	10 P1	1P070020		10.1	10CP1	
		1P	07		10.1	10CP2	8B	03		11	10CP1
		1P070021			13	10CP1	1P	10		13	10 P1
		1P070022			14	10 P1	1P070023		18.5	10 P1	
		1P	09		14	10CP3	1P070024		24	10CP1	
070003	BEFORE TAKEOFF	8B	03		0	10CP1	1P070025		2	10CP1	
	CHECKLIST - 3	1P	10		2	10 P1	1N	03		3.5	10CP1
		6A	11		5.43	10CP1	1P070026		7.8	10CP1	
		1P	06		7.8	10 P4	8B	03		8.5	10CP1
		1P070027			9.5	10CP1	1P	02		9.5	10 P1
		7G	17		11	10 P1	1P070026		13.2	10 P1	
		1P	06		13.2	10CP4	8B	03		14	10CP1
		1P030018			16	10CP1	1P	12		16	10 P3
		8B	08		17	10CP1				10	
070004	CLEARED TO TAXI ONTO	1B	14		0	10CP1	1B	15		0	10CP1
	RUNWAY 9L	1P070005			0	10CP1	1P070006		3.6	10CP1	
		1B	18		6	10 *2	1P070007		6	10 *1	
		1B	14		9	10CP2	1B	15		9	10CP2
		1P070008			9	10CP1	4D	52		13	10 P1
		4B	03		14	10 P2	4M	01		14	10 P4
		4B	03		24	10 P1	4D	28		27	10 P1
		8A	08		10	10 P2				10	
070005	RECEIVE TAKEOFF	1B	18		0	10 P2	1P070009		0	10 *1	

	CLEARANCE	1B	14	3	10 P2	1B	15	3	10 P3
070006	TAKEOFF ROLL	1P070010		3	10 P1				10
		8A	04	0	10 P4	4A	64	0	10 P1
		4M	03	0	10 P1				10
		4B	05	0	10 P1	7F	29	2	10 P2
		7F	34	2.76	10 P2	4B	06	5	10 P1
		7F	27	8	10CP2	7F	30	8	10CP3
		4B	07	10	10CP1	3A	01	12	10CP4
					10	3A	01	20	10 P1
		3A	09	20	10CP3	1P070001		20	10CP1
		1P	12	20	10 P4	3A	03	25	10CP4
070007	ROTATION, TAKEOFF, AND GEAR UP	1P070002		27	10CP1	1P	11	27	10 P3
		3A	01	0	10CP3	3A	03	0	10CP1
		1R070002		0	10CR1	3A	03	.9	10CR3
		1P070003		.9	10CP1	1P	04	0	10 P3
		4A	24	2.0	10 P2	3A	01	2.37	10CP4
		3A	10	2.6	10 P1	3L	02	3.2	10 P1
		3H	06	3.8	10 P2	3R	10	4.4	10 P4
		1P070034		4.5	10CP1	1P	12	4.5	10 P4
		1P070004		5.6	10 P1	1P	12	5.6	10CP4
		4D	01	6.0	10CP2	4D	07	12.0	10CP1
		4D	09	12.54	10CP1	1P070033		13.08	10CP1
		1P	12	13.08	10 P4	4D	02	13.08	10CP2
070008	SET HEADING BUGS TO 090 DEG AND COURSE BUGS TO 105 DEG	3S	11	0	10 P1	3S	12	5	10 P2
		3S	11	0	10CP1	3S	12	5	10CP2
070009	SET EADI AND MFD FOR TAKEOFF	2K	01	0	10CP4	2K	25	2.67	10CP1
		2K	38	4.05	10CP3	2K	07	5.43	10CP3
		2J	32	9.66	10CP1	2J	15	11.81	10CP1
		2K	14	7.39	10CP1				10
070010	TAKEOFF ROLL - A	8A	04	0	10 P4	4B	05	0	10 P1
		7F	29	3	10 P2	7F	34	3	10 P2
		4B	06	5	10 P1	4A	64	0	10 P1
					10	3A	01	20	10 P1
		7F	27	8	10CP2	7F	30	8	10CP3
		4B	07	10	10CP1	3A	01	12	10CP4
		3A	09	20	10CP3	1P070001		20	10CP1
		1P	12	20	10 P4	3A	03	25	10CP4
070011	ROTATION, FLARE, AND GEAR UP - A	1P070002		27	10CP1	1P	11	27	10 P3
		3A	06	0	10CP4	1P070003		1	10CP1
		1P	11	1	10 P3	4A	24	2	10 P2
		3A	01	4	10 P2	3L	01	4	10 P4
		3L	01	10	10CP4	4D	01	10	10CP2
		4D	07	15	10CP2	4D	09	16	10CP2
070012	CLEARED TO TAXI ONTO RUNWAY 9L - A	1R	23	0	10CP2	1R	36	0	10CP1
		1P070005		0	10CP1	1P070006		36	10CP1
		1R	32	6	10CP1	1P070007		6	10CP1
		1R	23	9	10CP3	1R	36	9	10CP2
		1P070008		9	10CP1	4D	52	13	10 P1
		4B	03	14	10 P2	4M	01	14	10 P4
		4B	03	24	10 P1	4D	28	18.5	10 P1
		8A	04	10	10 P4				10
070013	WAIT FOR TAKEOFF CLEARANCE				10				10
070014	RECEIVE TAKEOFF CLEARANCE	1R	32	0	10 P1	1P070009		0	10 P1
		1R	23	3	10 P4	1R	36	3	10 P3
		1P070010		3	10 P1				10
070015	BEFORE TAKEOFF CHECKLIST - 3A	8B	03	0	10CP1	1P070030		2	10CP1
		1P	10	2	10 P2	1N	03	2.7	10CP1
		1P070026		4.63	10CP1	1P	06	4.63	10 P4

	8B	03	5.13	10CP1	1P070031	7.13	10CP1
	1P	12	2.13	10 P4	2H 02	8.23	10 P1
	1P070032		9.28	10 P1	1P 18	9.28	10CP1
	8B	03	9	10CP1	1P070027	11	10CP1
	1P	02	11	10 P1	7G 17	12.5	10 P1
	1P070026		14.7	10 P1	1P 06	14.7	10CP4
	8B	03	15.2	10CP1	1P070027	17.2	10CP1
	1P	12	17.2	10 P3	8B 08	17.2	10CP1
090001 CONTACT DEPARTURE	1B	18	0	10 *3	1P090001	0	10 *1
CONTROL 125.7	1P090024		4.50	10 *1	1B 14	6	10CP4
	1B	15	6	10CP4	1P090002	6	10CP1
	1B	07	8	10CP3	1B 08	8	10CP2
	1B	09	10.88	10CP1	1B 06	13	10CP1
	1B	13	14.5	10CP3	1B 16	14.5	10CP1
	1P090003		14.5	10CP1	1B 18	18	10 *4
	1P090005		18	10 *1	1N 07	21.5	10CP1
	1N	18	23.65	10CP1	1B 19	28	10 *1
	1P090006		28	10 *1	1B 13	32	10CP4
	1B	16	32	10CP2	1P090007	32	10CP1
090002 CONTROL AIRCRAFT - A	4A	64	0	10 P2	8A 05	0	10 P1
(10 SEC PROC)			10			10	
090003 FLIGHT INSTRUMENT	3R	10	0	10 P4	3L 02	0	10 P1
SCAN - A	3A	10	0	10 P1	3S 01	0	10 P2
090004 CROSS RWY 27R MIDDLE	3V	13	0	10 P1	4A 28	0	10 P2
MARKER, TURN TO HDG	3S	12	5	10 P2		10	
105			10			10	
090005 COMPLETE TURN - ON			10			10	
HDG 105			10			10	
090006 RETRACT FLAPS TO	3A	01	0	10 P3	1P090022	2.37	10 P1
FLAPS 1. SET CLIMB	1P	10	2.37	10CP4	4E 07	3	10CP1
THRUST.	4E	15	5.69	10CP3	4N 03	7.92	10CP2
	4N	04	10	10CP2	1P090063	11	10CP1
	1P	07	11	10 P4	1B 03	12	10CP1
	7F	25	15	10 P4	7F 30	15	10 P3
090007 REACH 3000 FT ABOVE	3H	02	0	10 P1	4B 03	2	10 P1
GROUND LEVEL. BEGIN			10			10	
ACCELERATION TO 250			10			10	
KIAS. MAINTAIN 500-			10			10	
1000 FT/MIN CLIMB			10			10	
090008 CONTROL AIRCRAFT - B	4A	64	0	10 P3	8A 05	0	10 P2
(5 SEC PROC)			10			10	
090009 FLIGHT INSTRUMENT	3R	56	0	10 P1	3L 02	0	10 P2
SCAN - B	3A	10	0	10 P2	3S 01	0	10 P3
090010 RECEIVE INSTRUCTIONS	1B	19	0	10 *2	1P090025	0	10 *1
TO TURN TO HDG 070	1P090026		3	10 *1	1B 24	7	10CP1
TO INTERCEPT J37	1B	16	7	10CP3	1P090027	7	10CP1
	1P090028		11	10CP1	4A 28	7	10 P3
	3S	12	7	10 P2		10	
090011 RETRACT FLAPS TO	1P090022		2.37	10 P1		10	
FLAPS 0.	1P	10	2.37	10CP4	4E 06	3	10CP3
	4E	15	5.69	10CP3	4N 03	7.92	10CP2
	4N	04	10	10CP2	1P090064	11	10CP1
	1P	07	11	10 P4	1P 03	12	10 P1
	7F	25	13	10 P4	7F 30	13	10 P3
090012 COMPLETE TURN - ON			10			10	
HDG 070			10			10	
090013 REACH 250 KIAS			10			10	
090014 AFTER TAKEOFF CHECK-	1P090017		0	10 P1	1P 10	0	10CP2
LIST	8B090001		1.2	10CP1	1P090018	3.2	10 P1
	7M	12	4.1	10CP1	7M 13	6.51	10CP2

	1P090019	7.29	10CP1	1P	06	7.29	10	P4
	8B090001	8	10CP1	1P090020		10	10CP1	
	1P	11	10	10 P3 4D	08	11	10CP2	
	4D	11	11.72	10CP1	1P090021	12.5	10CP1	
	1P	06	12.5	10 P3	8B090001	13.5	10CP1	
	1P090022	15.5	10CP1	1P	10	15.5	10 P4	
	1P090021	16.5	10CP1	1P	06	16.5	10 P3	
	8B090001	18	10CP1	1P090023		20	10CP1	
	1P	09	20	10 P4		10		
090015	RECEIVE CLEARANCE TO	1B	0	10 *4	1P090029	0	10 *1	
	CLIMB TO 12000 FT	1B	4	10CP2	1B	4	10CP4	
		1P090030	4	10CP1	1P	4	10 P1	
090016	CONTROL AIRCRAFT - C	4A	0	10 P4	8A	0	10 P3	
	(SEC PROC)		10			10		
090017	FLIGHT INSTRUMENT	3R	0	10 P2	3L	0	10 P3	
	SCAN - C	3A	0	10 P3	3S	0	10 P4	
090018	CONTROL AIRCRAFT - D	4A	0	10 P1	8A	0	10 P4	
	(60 SEC PROC)		10			10		
090019	FLIGHT INSTRUMENT	3R	0	10 P3	3L	0	10 P4	
	SCAN - D	3A	0	10 P4	3S	0	10 P1	
090020	REACH 10000FT.	3S	0	10 P2	4A	0	10 P4	
	BEGIN TURN TO HDG	8A	0	10 P4		10		
	053.		10			10		
090021	SET CI COURSE CURSOR	3S	0	10	2	10		
	TO 053 DEG.		10			10		
090022	TURN COMPLETED - ON	4B	0	10 P2	7F	0	10 P2	
	HDG 053. BEGIN	7F	2	10 P3	3A	2	10 P1	
	ACCELERATION TO 280		10			10		
	KIAS		10			10		
090023	HANDOFF TO ATLANTA	1B	0	10 *3	1P090008	0	10 *1	
	EAST DEPARTURE SEC-	1P090009	3.1	10 *1	1B	7	10CP1	
	TOR. -123.95	1B	7	10CP1	1P090010	7	10CP1	
		1P090011	10.5	10CP1	1B	15	10CP2	
		1B	15	10CP2	1B	17.9	10CP1	
		1B	21	10CP1	1B	21	10CP2	
		1P090012	21	10CP1	1P090013	25.50	10CP1	
		1B	28	10 *4	1P090014	28	10 *1	
		1N	32	10CP1	1B	36	10 *4	
		1P090015	36	10 *1	1B	40	10CP4	
		1B	40	10CP1	1P090016	40	10CP1	
090024	TUNE COMPANY AND	1A	0	10CP3	1A	0	10CP2	
	EMERGENCY FREQAS	1A	2.98	10CP1	1A	6	10CP4	
		1A	6	10CP3	1A	8.01	10CP1	
090025	RECEIVE NOTICE OF	1B	0	10 *4	1P090031	0	10 *1	
	CONFLICTING TRAFFIC	1P090032	3.75	10 *1	1P090033	8.75	10 *1	
		1B	10	8A	03	10	10CP1	
		1P090034	12	10CP1	1B	12	10CP2	
			12	10CP1	1P090035	16	10CP1	
090026	BEGIN 500 FT/MIN		10			10		
	RATE OF CLIMB		10			10		
090027	LEVEL OFF AT 18000		10			10		
090028	RECEIVE CLEARANCE TO	1B	0	10 *2	1P090036	0	10 *1	
	RESUME CLIMB TO	1P090037	3	10 *1	1B	7	10CP2	
	CRUISE ALTITUDE	1B	7	10CP3	1P090038	7	10CP1	
		1P090039	10.5	10CP1		10		
090029	CLIMB THRU 23000 FT.	3H	0	10CP1	1B	2	10CP3	
	HANDOFF TO SPARTAN-	1B	2	10CP4	1P090045	2	10CP1	
	BURG HIGH SECTOR	1P090046	5.7	10CP1	1B	9	10 *2	
	-133.7	1P090041	9	10 *1	1P090042	12.5	10 *1	
		1B	17	10CP3	1B	17	10CP4	

	1P090043	17	10CP1	1P090044	20.7	10CP1
	1B 07	23	10CP3	1B 08	23	10CP2
	1B 09	25.88	10CP1	1B 06	28	10CP1
	1B 28	30	10CP2	1B 17	30	10CP4
	1P090045	30	10CP1	1P090046	33.7	10CP1
	1B 19	38	10 *2	1P090047	38	10 *1
	1P090048	41.7	10 *1	1N 07	45	10CP1
	1B 25	47	10CP2	1B 17	47	10CP3
	1P090049	47	10CP1		10	
090030 BEGIN MACH 0.65	3F 01	0	10 P3	4B 03	0	10 P2
SPEED SCHEDULE		10			10	
090031 CLIMB THRU 28000 FT.	3H 02	0	10CP4	1B 25	3	10CP2
REPORT TO ATC.	1B 17	3	10CP3	1P090050	3	10CP1
	1B 20	9	10 *1	1P090051	9	10 *1
	1P090052	12.5	10 *1	1B 25	15	10CP2
	1B 17	15	10CP3	1P090053	15	10CP1
090032 REDUCE RATE OF CLIMB	4B 03	0	10 P3	3L 01	0	10 P4
TO 500 FT/MIN		10			10	
090033 TUNE AND MONITOR	8B 06	0	10CP2	8B090002	6	10CP1
SPARTANBURG VOR	5V 01	11	10CP3	5V 02	11	10CP2
-115.7	5V 03	13.93	10CP1	5V 11	15.91	10CP1
	5V 12	18.20	10CP2	1P090065	19.6	10CP1
	1P 12	19.6	10 P1	5H 03	19.6	10CP1
	5G 05	22.5	10 P1		10	
090034 LEVEL OFF AT 29000	3H 06	0	10 P2	4A 64	0	10 P2
FT. ACCELERATE TO		10			10	
LONG RANGE CRUISE		10		4B 03	12	10 P2
SPEED -MACH 0.67	3F 01	12	10 P3	4A 64	10	10 P3
	4B 03	20	10 P2	3F 01	20	10 P3
090035 REACH MACH 0.67	3F 01	0	10 P3	4B 03	0	10 P2
090036 CONTROL AIRCRAFT - E	4A 65	0	10 P2	8A 06	0	10 P1
(0 SEC PROC)		10			10	
090037 FLIGHT INSTRUMENT	3R 56	0	10 P4	3L 03	0	10 P3
SCAN - E	3A 11	0	10 P3	3S 15	0	10 P2
090038 CONTROL AIRCRAFT - F	4A 65	0	10 P3	8A 06	0	10 P2
(120 SEC PROC)		10			10	
090039 FLIGHT INSTRUMENT	3R 57	0	10 P1	3L 03	0	10 P2
SCAN - F	3A 11	0	10 P2	3S 15	0	10 P3
090040 TUNE TO GORDONVILLE	8B 06	0	10CP2	8B090003	6	10CP1
VOR -115.6	5U 01	12	10CP3	5U 02	12	10CP3
	5U 03	15	10CP2	5U 11	18	10CP2
	5U 12	20	10CP2	1P090066	20	10CP1
	1P 12	20	10 P1	5G 04	25	10 P1
	5H 02	22.44	10CP1		10	
090041 CROSS SPARTANBURG		10			10	
VOR. TURN TO HDG 047	3S 04	0	10 P2	4A 28	0	10 P1
090042 TURN COMPLETE - ON		10			10	
HDG 047.		10			10	
090043 RECEIVE CLEARANCE TO	1B 19	0	10 *2	1P090054	0	10 *1
CLIMB TO 33000 FT	1P090055	3.5	10 *1	1B 25	8	10CP3
	1B 17	8	10CP4	1P090056	8	10CP1
	1P090057	12	10CP1	1B 01	15	10CP2
	1B 02	15	10CP2	1B 03	17.9	10CP1
	1B 05	20	10CP1	1B 25	22	10CP3
	1B 17	22	10CP4	1P090058	22	10CP1
	1P090059	26	10CP1	1B 18	30	10 *4
	1P090060	30	10 *1	1N 07	33.5	10CP1
	1B 20	36	10 *2	1P090061	36	10 *1
	1P090062	39.5	10 *1	1B 14	42	10CP4
	1B 15	42	10CP4	1P090002	42	10CP1

090044	BEGIN CLIMB TO 33000 FT.	4A	29	0	10	P2	3L	02	0	10	P1
		3R	10	0	10	P4				10	
090045	CLIMB THRU 32000 FT.	3H	02	0	10	CP1	1P090067		2	10	CP1
	BEGIN 500 FT/MIN	1P	11	2	10	P4				10	
	RATE OF CLIMB.				10					10	
090046					10					10	
090047					10					10	
090048	FLIGHT INSTRUMENT	2J	02	0	10	P3	3L	02	0	10	P3
	SCAN -A2	3A	10	0	10	P3	2K	14	0	10	P3
		2K	46	0	10	P2	2K	33	0	10	P2
090049	CONTROL AIRCRAFT	8A	06	0	10	P3	4A	68	0	10	P1
	THRU TOUCHDOWN				10					10	
090050	CONTROL AIRCRAFT -A1	4A	68	0	10	P2				10	
	-ATT CWS MODE				10					10	
090051	FLIGHT INSTRUMENT	2J	02	0	10	P2	3L	02	0	10	P1
	SCAN -A1	3A	10	0	10	P1	2K	14	0	10	P2
		2K	46	0	10	P1	2K	33	0	10	P1
090052	CROSS WPT SID1	2K	14	0	10	P1				10	
090053	TURN TO HEADING 105				10					10	
090054	HEADING CHANGE PROC.	4A	71	0		P1	2K	14	0		P2
	-ATT CWS	2K	33	0	30	P1	3L	02	0	30	P1
090055	COMPLETE TURN - ON				10					10	
	HDG 105				10					10	
090056	ENGAGE VERT PATH	2H	07	0	10	P1	2H	08	1.42	10	P1
	GUIDANCE MODE	2H	35	2.76	10	P1	2H	36	4.13	10	P1
		2H	39	4.91	10	P1	2H	40	6.27	10	P1
		2K	14	7.05	10	P2				10	
090057	CROSS WPT SID2. AGCS				10					10	
	URNS AIRCRAFT TO				10					10	
	HDG 088.				10					10	
090058	REACH 10000 FT.	4B	07	0	10	P2	3F	01	1	10	P1
	BEGIN ACCELERATION	7F	25	3	10	P1	7F	30	5.24	10	P3
	TO 280 KIAS.				10					10	
090059	HANDOFF TO ATLANTA	1R	16	0	10	*1	1P090069		0	10	*1
	CENTER EAST DEPAR-	1P090070		4	10	*1	1R	23	6	10	CP1
	TURE CONTROL-123.95	1R	15	6	10	CP1	1P090073		6	10	CP1
		1R	01	10	10	CP3	1R	02	10	10	CP2
		1R	03	12.93	10	CP2	1R	05	15	10	CP2
		1R	14	17	10	CP3	1R	15	17	10	CP2
		1P090093		17	10	CP1	1P090094		21	10	CP1
		1R	16	23	10	*2	1P090014		23	10	*1
		1H	07	27	10	CP1	1R	16	30	10	*2
		1P090015		30	10	*1	1R	14	34	10	CP4
		1R	15	34	10	CP3	1P090016		34	10	CP1
090060	CONTACT ATLANTA DE-	1R	32	0	10	*2	1P090001		0	10	*1
	PARTURE CONTROL	1P090024		4.5	10	*1	1R	24	6	10	CP1
	-125.7	1R	36	6	10	CP4	1P090002		6	10	CP1
		1R	07	8	10	CP3	1R	08	8	10	CP4
		1R	09	10.9	10	CP2	1R	06	12.48	10	CP2
		1R	14	14	10	CP4	1R	15	14	10	CP3
		1P090003		14	10	CP1	1R	16	18	10	*2
		1P090005		18	10	*1	1H	07	22	10	CP1
		1H	08	22	10	CP1	1R	16	25	10	*3
		1P090006		25	10	*1	1R	24	28.5	10	CP2
		1R	37	28.5	10	CP1	1P090007		28.5	10	CP1
090061	TUNE COMPANY FREQ	1Q	01	0	10	CP4	1Q	02	0	10	CP2
		1Q	03	3	10	CP2	1Q	12	5	10	CP2
090062	TUNE EMERGENCY FREQ.	1Q	07	0	10	CP4	1Q	08	0	10	CP4
		1Q	09	2.97	10	CP2				10	
090063	CLIMB THRU 18000 FT.	3H	04	0	10	CP4	3H	03	0	10	CP1

	RESET ALTIMETER BARO	1P090095	0	10CP1	1P	02	0	10	P3
	VALUE TO 29.92	3H	04	3	10	P4	3H	03	3
090064	CLIMB THRU 21000 FT.	3H	02	0	10CP3				10
090065	HANDOFF TO SPARTAN-	1R	24	0	10CP4	1R	15	0	10CP4
	BURG HIGH SECTOR	1P090040		0	10CP1	1R	16	5	10 *4
	-133.7	1P090074	5	10 *1	1P090075			9	10 *1
		1R	24	10	10CP3	1R	37	10	10CP2
		1P090076	10	10CP1	1R	07		14	10CP3
		1R	08	14	10CP4	1R	09	16.9	10CP2
		1R	06	19	10CP2	1R	25	20.47	10CP1
		1R	32	20.47	10CP3	1P090077		20.47	10CP1
		1P090078	23.81	10CP1	1R	32		27.5	10 *4
		1P090047	27.5	10 *1	1P090048			30.8	10 *1
		1R	24	34.3	10CP4	1R	15	34.3	10CP4
		1P090049	34.3	10CP1				10	10
090066	CROSS WPT SID3. AGCS			10				10	10
	BEGINS TURN TO HDG			10				10	10
	057.			10				10	10
090067	MON AUTO HEADING	2K	14	0	10	P2	2K	33	0
	CHANGE MANEUVER	2K	47	0	10	P1	2K	52	0
090068	TUNE NAV-1 TO SPAR-	8B090002		0	10CP1	5W	01	5	10CP3
	TANBURG VOR -115.7	5W	02	5	10CP2	5W	03	7.37	10CP2
		1P090096	8	10CP1	1P	02		8	10
090069	TURN COMPLETE - ON			10				10	10
	HDG 057.			10				10	10
090070	BEGIN MACH 0.65	4B	07	0	10	P2	3F	01	.5
	CLIMB.	7F	25	3	10	P1	7F	30	3
090071	RECEIVE NOTICE OF	1R	33	0	10	*1	1P090079		0
	CONFLICTING TRAFFIC	1P090080		3	10	*1	1P090081		7
		1R	25	10	10CP2	1R	37	10	10CP3
		1P090082	10	10CP1	1P090083			13.3	10CP1
090072	USE ALT ENG MODE TO	2H	33	0	10	P1	2H	31	2.5
	ESTABLISH NEW ALTI-	2H	42	3.28	10	P1	2H	34	1
	TUDE WHILE IN VERT	2H	28	4.06	10	P1	2H	30	5.48
	PATH MODE	2H	36	6.26	10	P1			10
090073	USE FPA SEL MODE TO	3L	02	0	10	P1	2H	21	1
	CONTROL RATE OF	2H	22	2.4	10	P1	2H	26	3.17
	CLIMB	2H	27	5.65	10	P1			10
090074	REACH 26000 FT			10				10	10
090075	MONITOR AUTO LEVEL	2H	25	0	10	P1	3H	02	.77
	OFF WHILE IN ALT ENG	2K	17	2.9	10	P1	4B	02	5.17
	MODE	7F	25	5.17	10	P4	7F	30	5.17
		3A	10	5.17	10	P2			10
090076	SET MFD TO 32 NM MAP	2K	10	0	10	P1	2K	17	2.68
090077	RECEIVE CLEARANCE TO	1R	33	0	10	*2	1P090084		0
	CONTINUE CLIMB TO	1P090085		3.1	10	*1	1R	24	6.5
	CRUISE ALTITUDE	1R	15	6.5	10CP4	1P090086		6.5	10CP1
		1P090087	9.5	10CP1				10	10
090078	RE-ESTABLISH VERT	2H	39	0	10	P1	2H	40	1.36
	PATH MODE	2H	36	2.14	10	P1			10
		4B	07	3.7	10	P2	7F	25	3.7
		7F	30	3.7	10	P3	3F	01	4.14
090079	CLIMB THRU 28000 FT.	3H	02	0	10CP4	1R	24	2.37	10CP4
	REPORT TO ATC.	1R	15	2.37	10CP4	1P090050		2.37	10CP1
		1R	16	7	10	*2	1P090088		7
		1P090089	10	10	*1	1R	25	11	10CP3
		1R	37	11	10CP4	1P090090		11	10CP1
090080	REACH 31000 FT. AC-			10				10	10
	CELERATE TO LONG			10				10	10
	RANGE CRUISE SPEED			10				10	10

	-MACH 0.67			10		10
090081	REACH MACH 0.67	4B 07	0	10 P2 3F 01	5	10 P3
		7F 25	3	10 P1 7F 30	3	10 P1
090082	RECEIVE CLEARANCE TO	1R 32	0	10 *4 1P090054	0	10 *1
	CONTINUE CLIMB TO	1P090055	3.5	10 *1 1R 25	8	10CP4
	CRUISE ALTITUDE	1R 38	8	10CP1 1P090056	8	10CP1
		1P090057	12	10CP1 1P 06	8	10 P2
090083	TUNE HIGH ROCK ULTRA	1R 01	0	10CP3 1R 02	0	10CP2
	HIGH SECTOR -134.55	1R 03	2.93	10CP2 1R 05	4.51	10CP2
		1R 27	6	10CP1 1R 38	6	10CP1
		1P090091	6	10CP1 1P090092	9	10CP1
		1R 16	13	10 *2 1P090014	13	10 *1
		1N 07	17	10CP1 1R 16	20	10 *1
		1P090061	20	10 *1 1P090062	23.5	10 *1
		1R 27	26	10CP2 1R 36	20	10CP4
		1P090002	26	10CP1	10	10
B9EA01	ENGINE 1 FIRE		10		10	
B9EA02	ENGINE FIRE SEQUENCE	7P 39	00	10 *1 1PB9EA01	.71	10 P1
	- PRIMARY	1P 19	.71	10CP2 7P 47	2.21	10CP1
		7P 53	2.21	10CP1 7P 15	3.56	10CP1
		1PB9EA02	4.47	10CP1 1P 20	4.47	10 P1
		4B 08	6.47	10CP2 4A 23	8.97	10 P1
		1PB9EA04	8.97	10CP1 1P 09	8.97	10 P1
		7M 08	12.21	10CP3 1PB9EA06	13.61	10CP1
		1P 09	13.61	10 P2 7P 17	15.48	10CP2
		1PB9EA08	16.78	10CP1 1P 09	16.78	10 P1
		7P 15	21.78	10CP4 1PB9EA10	24.78	10CP1
		1P 16	24.78	10 P3 7P 18	26.91	10CP2
		7P 27	27.18	10CP2 1PB9EA11	28.68	10CP1
		1P 16	28.68	10 P4 7P 16	42.18	10CP3
		1PB9EA12	42.68	10CP1 1P 06	42.68	10 P4
B9EA03	ENGINE FIRE SEQUENCE	1R 25	00	10 P1 1R 41	00	10 P1
	-NOTIFY ATC	1PB9EA13	00	10 P1 1R 35	6.8	10 *4
		1PB9EA14	3.8	10 *1 1PB9EA27	3.0	10 *1
		1R 42	22.8	10 P1 1R 41	22.8	10 P2
		1PB9EA15	22.8	10 P1 1N 05	33.8	10CP1
		1N 07	36.6	10CP2	10	10
B9EA04	ENGINE FIRE SEQUENCE	8B 02	00	10CP3 8B 05	5.9	10CP2
	READ CHECKLIST	8B 03	10.9	10CP1 1PB9EA16	12.9	10CP1
	PRIMARY	1P 16	14.4	10 P4 8B 03	14.4	10CP1
		1PB9EA17	16.4	10CP1 1P 16	16.4	10 P4
		8B 03	17.9	10CP1 1PB9EA18	19.9	10CP1
		1P 16	19.9	10 P4 8B 03	21.4	10CP1
		1PB9EA19	23.4	10CP1 1P 16	23.4	10 P4
		1PB9EA12	24.9	10CP1 1P 06	24.9	10 P4
B9EA05	SECONDARY ENGINE	8B 03	00	10CP1 1PB9EA20	2.	10CP1
	FIRE SEQUENCE	1P 16	2.	10 P4 7D 31	3.5	10CP2
		1PB9EA21	5.35	10CP1 1P 16	5.35	10 P4
		7D 18	6.85	10CP1 1PB9EA22	9.25	10CP1
		1P 16	9.25	10 P4 7L 22	10.75	10CP1
		1PB9EA23	13.04	10CP1 1P 13	13.04	10 P3
		7C 31	16.54	10CP3 7C 35	18.89	10CP4
		7B 33	20.28	10CP2 1PB9EA24	22.0	10CP1
		1P 15	22.6	10 P3 1PB9EA25	22.6	10CP1
		1P 16	27.7	10 P4 1PB9EA26	27.7	10CP1
		1P 16	29.2	10 P4 7E 31	29.2	10CP1
09FE01	HYD SYS B PUMP OVHT	7A 24	0	10CP1 7A 24	0	10 P1
		1P010022	.53	10CP1 1P 06	.53	10 P3
		7A 25	1.53	10CP1 1P 03	1.53	10 P1
		7A 15	3.67	10CP1 7A 06	5.22	10CP1

	7A	24	7.17	10 P1	7A	24	7.17	10CP1
	7A	25	7.7	10CP1	7A	11	7.84	10CP1
	1P09FE01		10.39	10CP1	1P	15	10.39	10 P1
	1P	03	13.1	10 P1	8B	02	10	10CP3
	8B	05	16	10CP1	8B	03	26	10CP2
	1P09FE02		30	10CP1	1P	16	30	10 P4
	1P09FE03		32	10CP1	1P	08	32	10 P2
	1P	03	33.6	10 P1	8B	08	32	10CP1
110001	4B	03	0	10 P2	3F	01	0	10 P3
110002	1B	25	0	10CP4	1B	32	0	10CP1
	1P110001		0	10CP1	1P110002		4	10CP1
	1B	20	6	10 *3	1P110003		6	10 *1
110003	3F	01	0	10 P3	4B	07	0	10 P2
110004	1B	25	0	10CP1	1B	17	0	10CP2
	1P110004		0	10CP1	1P110005		4	10CP1
	1B	20	6	10 *4	1P110006		6	10 *1
110005	1B	36	0	10 *1	1P110007		0	10 *1
	1P110008		3.66	10 *1	1P110009		8.54	10 *1
	1B	26	12	10CP1	1B	17	12	10CP1
	1P110010		12	10CP1	1P110011		16	10CP1
	1B	19	12	10 P2				
110006	4A	28	0	10 P2	3S	12	5	10 P2
	3S	01	0	10 P2	3L	02	0	10 P1
110007	1B	07	0	10CP3	1B	08	0	10CP2
	1B	09	2.88	10CP1	1B	06	5	10CP1
	1B	28	6.5	10CP1	1B	17	6.5	10CP1
	1P110012		6.5	10CP1	1P110013		10	10CP1
	1B	36	13	10 *2	1P110014		13	10 *1
	1N	07	15	10CP1	1B	36	18	10CP2
	1P110015		18	10CP1				
110008	8B	06	0	10CP1	8B110001		6	10CP1
	5U	01	11	10CP3	5U	02	11	10CP3
	5U	03	14	10CP2	1P110020		16.5	10CP1
	1P	12	16.5	10 P1	5G	04	19	10 P1
	5H	02	16.5	10CP1				
110009								
110010	1B	19	0	10 *2	1P110016		0	10 *1
	1P110017		3.5	10 *1	1B	25	8	10CP3
	1B	17	8	10CP4	1P110018		8	10CP1
	1P110019		12	10CP1				
110011	4A	68	0	10 P4	8A	08	0	10 P1
110012	3R	57	0	10 P2	3A	14	5	10 P1
	3L	04	0	10 P1	3S	17	0	10 P4
11FD01	7A	24	0	10CP1	7A	24	0	10 P1
	1P010022		.53	10CP1	1P	06	.53	10 P1
	7A	25	1.53	10CP1	1P	03	1.53	10 P1
	7A	11	3.67	10CP1	7A	13	4.22	10CP1
	1P11FD01		4.77	10CP1	1P	02	4.77	10 P2
	1P	03	6.77	10 P1	4A	62	5	10CP2
	4A	19	6.21	10CP1	7A	20	7.26	10CP2
	4A	06	10	10CP1	7A	06	13.33	10CP1

	7A	08	15.28	10CP1	4D	41	16.74	10CP1
	8B	02	20	10CP3	8B	05	26	10CP1
	8B	03	36	10CP1	1P11FD02		38	10CP1
	1P	15	38	10 P2	8B	03	41.7	10CP1
	1P11FD03		43.7	10CP1	1P	16	43.7	10 P3
	8B	03	47	10CP1	1P11FD04		49	10CP1
	1P	15	49	10 P3	8B	03	53	10CP1
	1P11FD03		55	10CP1	1P	08	55	10 P2
	8B	08	55	10CP1			10	
11AF01	ENG NO.2 OIL FILTER	7F	15	0	10CP1	1P11AF01	.83	10CP1
	BYPASS	1P	15	.83	10 P4	1P	03	4
		7F	15	.83	10 P1	4B	02	2
		4A	23	3	10 P1	4G	10	6
		7F	16	5	10CP1	7F	34	5.83
		1P11AF02		8	10CP1	1P	17	8
		1P	03	11.5	10 P1			10
11CB01	NO.2 CSD LOW OIL	7B	73	0	10 *1			10
	PRESSURE	1P11CB01		.75	10CP1	1P	14	.75
		7B	74	.75	10CP2	1P	03	2.85
		7B	09	3.24	10CP1	1P11CB02		4.26
		1P	19	4.26	10 P1	7B	13	4.5
		7B	14	6.46	10CP1	7B	68	8.54
		7B	72	10.72	10CP1	7B	63	13.29
		7L	13	15.35	10CP4	7B	24	17.64
		7B	44	18.56	10CP2	7B	25	20.06
		1P11CB03		21	10CP1	1P	17	21
		8B	02	21	10CP3	8B	05	27
		8B	03	37	10CP1	1P11CB04		39
		1P	17	39	10 P2	8B	03	43
		1P11CB05		45	10CP1	1P	17	45
		8B	03	49	10CP1	1P09FE03		51
		1P	08	51	10 P2	1P	03	53
		8B	08	51	10CP1			10
130001	REPORT REACHING	1R	26	0	10CP1	1R	38	0
	CRUISE ALT	1P110001		0	10CP1	1P110002		4
		1R	33	5	10 *3	1P110003		5
130002	MON AUTO LEVEL OFF	3H	02	0	10 P3	2K	17	2.13
	WHILE IN VERT PATH	4B	02	4.4	10 P2	7F	25	7.13
	MODE	7F	30	7.13	10 P3	3A	10	7.57
130003	CROSS WPT LINCO			10				10
130004	PILOT REQUESTS RETRN	1R	26	0	10CP2	1R	38	0
	TO ATLANTA. CONTROL-	1P110004		0	10CP1	1P110005		4
	LER COORDINATES WITH	1R	33	6	10 *4	1P110006		6
	ADJACENT SECTOR CON-			10				10
	TROLLERS FOR RETURN			10				10
	VECTORS.			10				10
130005	RECEIVE VECTORS	1R	33	0	10 *2	1P130001		0
		1P130002		3.7	10 *1	1R	26	7
		1R	38	7	10CP4	1P130003		7
130006	TURN TO HDG 270			10				10
130007	HEADING CHANGE MA-	2H	19	0	10 P1	2H	20	2.5
	NEUVER USING TKA SEL	2H	17	3.61	10 P1	2H	14	4.38
	MODE -VERT PATH CUR-	2H	15	5.79	10 P1	2H	42	6.56
	RENT MODE	2H	28	7.34	10 P1	2H	29	8.76
		2K	17	12.04	10 P1			10
130008	TURN COMPLETE - ON			10				10
	HDG 270			10				10
130009	RECEIVE INSTRUCTIONS	1R	34	0	10 *1	1P130004		0
	FOR A 4-D SHINE 01	1P130005		4.5	10 *1	1P130006		9
	STAR	1R	26	10	10CP4	1R	39	10

	1P130010	10	10CP1	1P130011	14	10CP1
130010 SET UP NEW 4-D	8B 01	17.5	10CP2		10	10
FLIGHT PLAN			10		10	10
130011 LOOK UP PAGE 2	2L 68	0	10CP1 2L 16	2.03	10CP2	10CP2
	2L 68	4.11	10CP2 2L 16	5.50	10CP1	10CP1
130012 LOOK UP PAGE 2 -	2L 52	0	10CP2 2L 16	12	10CP1	10CP1
STAR CALL-UP	2L 20	15	10CP2 2K 17	17	10CP1	10CP1
130013 STAR NAME - SHINE 01	2L 55	1.46	10CP1 2L 44	2.81	10CP2	10CP2
	2L 45	4.16	10CP2 2L 50	5.51	10CP2	10CP2
	2L 41	6.86	10CP1 2L 35	8.21	10CP1	10CP1
	2L 26	9.56	10CP1		10	10
130014 LOOK UP PAGE 2 -	2L 38	0	10CP2 2L 16	8.32	10CP1	10CP1
AWY CALL-UP	2L 20	10.66	10CP2 2K 17	12.17	10CP1	10CP1
130015 AWY NAME - J815R	2L 46	1.46	10CP1 2L 33	2.81	10CP2	10CP2
	2L 26	4.16	10CP3 2L 30	5.51	10CP1	10CP1
	2L 54	6.86	10CP2		10	10
130016 SHINE 01 AND J815R	2K 17	0	10CP2		10	10
DISPLAYED ON MFD.			10		10	10
CO-PILOT DETERMINES			10		10	10
THAT THE COMMON WPT			10		10	10
ON THE STAR AND AWY			10		10	10
IS THE WPT SHINE. AN			10		10	10
EST MADE OF RNG AND			10		10	10
BRG FROM WPT SHINE			10		10	10
TO PT WHERE HDG 270			10		10	10
INTCPTS J815R			10		10	10
130017 INITIALIZE PAGE	2L 63	0	10CP1 2L 07	1.48	10CP2	10CP2
130018 DESTINATION NAME-	2L 47	3.56	10CP2 2L 37	4.91	10CP2	10CP2
KATL	2L 56	6.37	10CP2 2L 48	7.83	10CP1	10CP1
130019 ATC CLRNC PAGE -			10		10	10
CREATE WPT BASED ON	2L 37	0	10CP2 2L 08	15.18	10CP1	10CP1
BEARING AND RANGE	2K 17	17.52	10CP1 2L 20	19.79	10CP3	10CP3
FROM EXISTING WPT			10		10	10
130020 WPT01 BEARING/RANGE	2L 59	1.46	10CP1 2L 52	2.81	10CP1	10CP1
270 DEG 80 NM	2L 56	4.16	10CP1 2L 35	5.51	10CP1	10CP1
	2L 26	6.86	10CP3 2L 27	8.21	10CP1	10CP1
	2L 32	9.69	10CP1 2L 35	11.04	10CP1	10CP1
	2L 33	12.39	10CP1 2L 35	13.83	10CP1	10CP1
130021 FL INPUT - 320	2L 42	0	10CP2 2L 19	1.46	10CP2	10CP2
	2L 28	3.52	10CP1 2L 27	4.87	10CP1	10CP1
	2L 35	6.22	10CP1 2L 20	7.57	10CP1	10CP1
130022 GS INPUT - 250	2L 49	0	10CP1 2L 19	1.47	10CP2	10CP2
	2L 27	3.53	10CP1 2L 30	4.88	10CP1	10CP1
	2L 35	6.23	10CP1 2L 20	7.58	10CP3	10CP3
130023 WPT NAME - LAKEE	2L 48	1.46	10CP1 2L 37	2.81	10CP1	10CP1
	2L 47	4.16	10CP1 2L 41	5.51	10CP1	10CP1
	2L 41	6.86	10CP1		10	10
130024 PTA INPUT - 10:21:00	2L 56	0	10CP2 2L 26	1.46	10CP3	10CP3
	2L 35	2.81	10CP1 2L 27	4.16	10CP1	10CP1
	2L 26	5.51	10CP3 2L 35	6.86	10CP1	10CP1
	2L 35	8.21	10CP1 2L 20	9.56	10CP3	10CP3
130025 HANDOFF TO BADIN	1R 34	0	10 *2 1P130007	0	10 *1	10 *1
ULTRA HIGH SECTOR	1P130008	4	10 *1 1R 24	5	10CP3	10CP3
-135.35	1R 39	5	10CP2 1P130009	5	10CP1	10CP1
	1R 07	8.5	10CP3 1R 08	8.5	10CP4	10CP4
	1R 09	11.4	10CP2 1R 27	13	10CP3	10CP3
	1R 38	13	10CP2 1P110001	13	10CP1	10CP1
	1P110002	17	10CP1 1R 32	18	10 *1	10 *1
	1P110014	18	10 *1 1N 07	21	10CP1	10CP1

130026	INITIATE TIME PATH	2H	35	0	10CP2	2H	39	2.15	10CP1
	-4-D GUIDANCE MODE	2H	49	3.51	10CP1	2H	50	4.86	10CP1
		2K	17	5.64	10CP1	2K	23	7.91	10CP1
		2K	31	5.64	10CP1				10
130027	KEY IN WPT PPOS	2L	52	1.46	10CP1	2L	52	2.81	10CP1
		2L	51	4.16	10CP1	2L	55	5.51	10CP1
130028	WPT02 BEARING/RANGE	2L	59	1.46	10CP1	2L	52	2.81	10CP1
	234 DEG 17 NM	2L	56	4.16	10CP1	2L	35	5.51	10CP1
		2L	27	6.86	10CP1	2L	27	8.21	10CP1
		2L	28	9.69	10CP1	2L	29	11.04	10CP1
		2L	26	12.39	10CP1	2L	32	13.84	10CP1
130029	KEY IN WPT SHINE	2L	55	0	10CP1	2L	44	1.35	10CP2
		2L	45	2.70	10CP1	2L	50	4.05	10CP1
		2L	41	5.40	10CP1				10
130030	ATC CLEARANCE PAGE -	2L	52	0	10CP2	2L	08	11.01	10CP1
	STAR INPUT	2K	17	13.35	10CP1				
140001	CONTACT PULASKI HIGH	1B	01	0	10CP2	1B	02	0	10CP2
	SECTOR -132.75	1B	03	2.9	10CP1	1B	04	5	10CP1
		1B	28	6.5	10CP2	1B	17	6.5	10CP4
		1P140001		6.5	10CP1	1P140002		10.5	10CP1
		1B	20	15	10 *4	1P140003		15	10 *1
		1N	06	19	10CP1	1B	36	23	10 *2
		1P140004		23	10 *1				10
140002	BEGIN DESCENT TO			10					10
	31000FT			10					10
140003	ALTITUDE CHANGE PROC	4A	29	0	10 P2	3L	02	0	10 P1
		3H	02	0	10 P1	3R	10	0	10 P4
		4B	03	0	10 P2	3F	01	0	10 P3
140004	LEVEL OFF AT 31000			10					10
	FT			10					10
140005	RECEIVE VECTOR TO	1B	36	0	10 *3	1P140005		0	10 *1
	INTERCEPT PULASKI	1P140006		3.27	10 *1	1P140007		7.63	10 *1
	225 RADIAL	1B	25	13	10CP3	1B	17	13	10CP4
		1P140008		13	10CP1	1P140009		17	10CP1
140006	TURN TO HDG 240			10					10
140007	HEADING CHANGE PROC.	3S	01	0	10 P2	4A	28	0	10 P2
		3L	02	0	10 P1	3S	11	0	10 P1
		3R	58	0	10 P1				10
140008	TURN COMPLETE - ON			10					10
	HDG 240			10					10
140009	BEGIN TURN TO PULAS-			10					10
	KI 225 RADIAL			10					10
140010	TURN COMPLETE - ON			10					10
	HDG 225			10					10
140011	SET NAV-2 TO TOCCOA	8B	06	0	10CP1	8B140001		6	10CP1
	VOR -109.8	5V	01	12	10CP3	5V	02	12	10CP2
		5V	03	14.93	10CP1	1P140042		17	10CP1
		1P	13	17	10CP1	5G	05	19.5	10 P1
		5H	03	17	10CP1				10
140012	HANDOFF TO LANIER	1B	18	0	10 *4	1P140010		0	10 *1
	HIGH SECTOR	1B	24	4	10CP4	1B	16	4	10CP1
		1P140011		4	10CP1	1B	07	8	10CP3
		1B	08	8	10CP2	1B	09	10.88	10CP1
		1B	06	13	10CP1	1B	28	14.5	10CP3
		1B	17	14.5	10CP3	1P140012		14.5	10CP1
		1B	20	20	10 *4	1P140013		20	10 *1
		1N	07	23	10CP1	1B	36	26	10 *2
		1P140014		26	10 *1				10
140013	RECEIVE INSTRUCTIONS	1B	36	0	10 *4	1P140015		0	10 *1
	TO DESCEND TO 24000	1P140016		3.9	10 *1	1B	25	7	10CP1

FT	1B	17	7	10CP2	1P140017	7	10CP1
	1P140018		11	10CP1			10
140014 BEGIN MACH 0.75				10			10
DESCENT				10			10
140015 REACH 26000 FT				10			10
140016 RECEIVE CLEARANCE TO	3H 02	0		10CP1 1B 25	2		10CP2
DESCEND TO 11000 FT.	1B 17	2		10CP3 1P140019	2		10CP1
	1B 19	7		10 *3 1P140020	7		10 *1
	1P140021	10.75		10 *1 1B 25	15		10CP3
	1B 17	15		10CP4 1P140022	15		10CP1
	1P140023	19		10CP1			10
140017 TUNE NORCROSS LOW	1B 01	0		10CP2 1B 02	0		10CP2
SECTOR -125.2	1B 03	2.9		10CP1 1B 05	5		10CP1
	1E 28	6.5		10CP2 1B 17	6.5		10CP4
	1P140024	6.5		10CP1 1P140025	10.5		10CP1
	1B 18	14		10 *3 1P140026	14		10 *1
	1P140027	17.5		10 *1 1N 07	20		10CP1
140018 SET ALTIMETER BARO	1P140043	0		10CP1 1P 13	0		10 P2
SETTING TO 29.80				10			10
140019 CROSS TOCCOA VOR				10			10
140020 TUNE NORCROSS VOR	8B 06	0		10CP1 8B140002	6		10CP1
-116.6	5U 01	13.70		10CP3 5U 02	13.70		10CP3
	5U 03	16.70		10CP2 1P140044	18.78		10CP1
	1P 13	15		10 P1 5G 04	17.5		10 P1
	5H 02	20.81		10CP1			10
140021 RECEIVE INSTRUCTIONS	1B 37	0		10 *1 1P140028	0		10 *1
TO GO INTO A HOLDING	1P140029	4		10 *1 1P140030	9.33		10 *1
PATTERN AT LANIER	1P140031	14.66		10 *1 1B 25	16		10CP3
INTERSECTION	1B 17	16		10CP4 1P140032	16		10CP1
	1P140033	20.5		10CP1			10
140022 REACH 17000 FT.				10			10
BEGIN 500 FT/MIN				10			10
RATE OF DESCENT				10			10
140023 REPORT 1000 FT TO	3H 02	0		10CP3 1P140045	2		10CP1
LEVEL OFF	1P 11	2		10 P4			10
140024 REACH 16000 FT. BE-				10			10
GIN DECELERATION TO				10			10
210 KIAS.				10			10
140025 TUNE CHATTANOOGA VOR	8B 07	0		10CP1 8B140003	6		10CP1
-115.8	5V 01	11		10CP3 5V 02	11		10CP2
	5V 03	13.93		10CP1 1P140046	16		10CP1
	1P 13	16		10 P1 5G 05	19		10 P1
	5H 03	19		10CP1			10
140026 REACH 210 KIAS.	3A 01	0		10 P3 4B 03	0		10 P2
140027 HOLDING PATTERN PROC	3S 20	0		10 P1 3S 12	0		10 P1
-RIGHT TURNS	4A 66	0		10 P1 3L 03	0		10 P3
-1 1/2 MIN. LEGS	3A 11	0		10 P3 3N 03	4.5		10 P1
	4B 07	7		10 P2			10
-1 LOOP	3S 17	1	0	10 P2 4A 67	1	30	10 P1
-INITIATE FIRST	3S 16	1	30	10 P1 4A 65	1	30	10 P4
	3N 04	1	30	10 P1			10
TURN OVER INTER-	3N 03	1	30	10CP1 3A 11	1	30	10 P3
SECTION	4B 07	1	35	10 P2 3L 03	1	30	10 P3
	3S 17	1	30	10 P2 3N 02	2	00	10CP1
	1P140047	2	0	10CP1 1P 11	2	00	10 P2
	3N 02	2	30	10CP1 1P140048	2	30	10CP1
	1P 11	2	30	10 P2 3N 02	2	55	10CP1
	1P140049	2	55	10CP1 1P 11	2	55	10 P2
	3N 04	3	00	10CP1 4A 66	3	00	10 P1
	3N 03	3	00	10 P1			10

	3L	03	3	00	10 P3	3A	11	3	00	10 P3
	4B	07	3	05	10 P2	3S	17	4	00	10 P2
	4A	67	4	30	10 P1	3N	04	4	30	10 P1
	3S	15	4	30	10 P2					10
	4A	65	4	30	10 P1	3N	03	4	30	10CP1
	3A	10	4	30	10 P3	4B	07	4	35	10 P2
	3L	03	4	30	10 P4	3N	02	5	00	10CP1
	1P140047		5	00	10CP1	1P	11	5	00	10 P2
140028	RECEIVE CLEARANCE TO	1B	36	0	10 *3	1P140034			0	10 *1
	CONTINUE DESCENT AND	1P140035		3.27	10 *1	1P140036		7.63		10 *1
	APPROACH	1B	25	12	10CP1	1B	17		12	10CP2
		3N	03	12	10 P1					10
	1P140037		12	12	10CP1	1P140038		16.5		10CP1
140029	BEGIN DESCENT. SET				10					10
	THRUST FLIGHT				10					10
	IDLE				10					10
140030	REACH 11000 FT AT				10					10
	230 KIAS				10					10
140031	HANDOFF TO ATLANTA	1B	20	0	10 *1	1P140039		0		10 *1
	APPROACH CONTROL	1P140040		4	10 *1	1B	25	5		10CP2
		1B	17	5	10CP3	1P140041		5		10CP1
140032	ALTIMETER BARO SET	3H	04	0	10 P3	3H	03	0		10 P2
	PROC.	3H	04	0	10CP3	3H	03	0		10CP3
150001	RECEIVE INSTRUCTIONS	1R	34	0	10 *3	1P110016		0		10 *1
	TO DESCEND TO 31000	1P110017		3	10 *1	1R	30	8		10CP1
	FT.	1R	39	8	10CP3	1P110018		8		10CP1
		1P110019		12	10CP1	1R	01	13		10CP3
		1R	02	13	10CP2	1R	03	15.93		10CP2
		1R	05	17.51	10CP2	1R	27	19		10CP1
		1R	38	19	10CP1	1P140001		19		10CP1
		1P140002		23	10CP1	1R	33	25		10 *4
		1P140003		25	10 *1	1N	07	28		10CP1
150002	USE ALT ENG MODE TO	2H	33	0	10 P1	2H	31	2.47		10 P1
	ESTABLISH NEW ALTI-	2H	51	5.73	10 P1	2H	34	4.31		10 P1
	TUDE WHILE IN TIME	2H	28	4.31	10 P1	2H	30	6.51		10 P1
	PATH MODE	2H	42	7.29	10 P1	2H	36	8.07		10 P1
		2H	44	8.85	10 P1					10
150003					10					10
150004	REVISE FLIGHT PLAN	2L	65	0	10CP1	2L	09	2.03		10CP1
	TO ESTABLISH NEW	2L	24	4.37	10CP1	2L	24	5.87		10CP2
	FLIGHT LEVEL 310 AT	2L	09	7.19	10CP2	2L	42	9.27		10CP1
	SPT01.	2L	28	10.62	10CP2	2L	26	12.08		10CP3
		2L	35	13.43	10CP1	2L	20	14.78		10CP1
		2L	09	16.25	10CP2	2L	21	18.33		10CP3
		1P150012		20	10CP1	1P	02	20		10 P2
150005	ADJUST THRUST TO FLY	2K	17	0	10 P1	2K	31	0		10 P1
	AIRPLANE SYMBOL ON	4B	07	0	10 P2	2K	24	0		10 P3
	MFD INTO TIME BOX	2K	32	5.13	10 P1	2K	17	10		10 P1
		2K	31	10	10 P1	4B	07	10		10 P2
		2K	32	12	10 P1					10
150006	RE-ESTABLISH TIME	2H	39	0	10 P1	2H	49	2.92		10 P1
	PATH -4-D MODE	2H	50	4.27	10 P1	2H	32	5.05		10 P1
		2H	44	5.83	10 P1	2H	38	2.14		10 P1
		2H	42	6.61	10 P1	2H	40	1.36		10 P1
150007	LEVEL OFF AT 31000				10					10
	FT				10					10
150008	HANDOFF TO LANIER	1R	16	0	10 *2	1P140010		0		10 *1
	HIGH SECTOR -132.4	1R	14	4	10CP4	1R	15	4		10CP3
		1P140011		4	10CP1	1R	07	8		10CP3
		1R	08	8	10CP4	1R	09	10.9		10CP2

	1R	06	12.48	10CP2	1R	27	14	10CP4
	1R	15	14	10CP4	1P140012		14	10CP1
	1R	33	19	10 *4	1P140013		19	10 *1
	1N	07	22	10CP1				10
150009	BEGIN TURN TO HDG			10				10
	234 TO ACQUIRE J815R			10				10
150010	TURN COMPLETE - ON			10				10
	AWY J815R			10				10
150011	AGCS BEGINS PROGRAM-			10				10
	MED DESCENT TO 11000			10				10
	FT. THRUST ADJUSTED			10				10
	AUTOMATICALLY.			10				10
150012	RECEIVE INSTRUCTIONS	1R 32	0	10 *2	1P150001		0	10 *1
	FROM ATC	1P150002	4	10 *1	1R 25		7	10CP3
		1R 37	7	10CP4	1P150003		7	10CP1
150013	SET ALTIMETER BARO	1P150013	0	10CP1	1P 15		0	10 P1
	SETTING TO 29.88			10				10
150014	CROSS WPT SHINE.			10				10
	AGCS BEGIN AUTO			10				10
	TURN TO HDG 211			10				10
150015	TURN COMPLETE - ON			10				10
	HDG 211			10				10
150016	DESCEND THRU 26000	1R 24	0	10CP4	1R 15		0	10CP4
	FT. REPORT TO ATC.	1P140019	0	10CP1	1R 34		5	10 *4
	HANDOFF TO NORCROSS	1P150005	5	10 *1	1P150006		8	10 *1
	LOW SECTOR -125.2	1R 30	10	10CP2	1R 39		10	10CP4
		1P150007	10	10CP1	1R 01		14	10CP3
		1R 02	14	10CP2	1R 03		16.93	10CP2
		1R 05	18.51	10CP2	1R 27		20	10CP1
		1R 38	20	10CP1	1P140024		20	10CP1
		1P140025	24	10CP1	1R 33		27	10 *4
		1P140013	27	10 *1	1N 07		30	10CP1
150017	CROSS WPT LANDS.			10				10
	AGCS BEGINS PROGRAM-			10				10
	MED TURN TO HDG 228			10				10
150018	TURN COMPLETE - ON			10				10
	HDG 228			10				10
150019	LEVEL OFF AT 11000			10				10
	FT			10				10
150020	MONITOR AUTO LEVEL	3H 02	0	10 P3	2K 14		2.13	10 P1
	OFF WHILE IN TIME	3L 01	4.4	10 P1				10
	PATH MODE			10				10
150021	AGSC BEGINS PROGRAM-			10				10
	MED DECELERATION TO			10				10
	250 KIAS.			10				10
150022	REACH 250 KIAS			10				10
150023	RECEIVE INSTRUCTIONS	1R 35	0	10 *1	1P150009		0	10 *1
	TO CHANGE LAKESIDE	1P150010	4	10 *1	1R 30		9	10CP1
	PTA TO 10:22:15	1R 39	9	10CP3	1P150011		9	10CP1
150024	REVISE FLIGHT PLAN	2L 65	0	10CP1	2L 09		2.03	10CP1
	TO CHANGE LAKESIDE	2L 24	4.37	10CP1	2L 24		5.87	10CP2
	PTA	2L 09	7.19	10CP1	2L 56		9.53	10CP1
		2L 26	10.88	10CP1	2L 35		12.33	10CP1
		2L 27	13.68	10CP1	2L 27		15.03	10CP1
		2L 26	16.38	10CP3	2L 30		17.73	10CP1
		2L 20	19.08	10CP2	2L 09		20.59	10CP1
		2L 21	22.93	10CP4	1P150014		24.45	10CP1
		1P 02	24.45	10 P3				10
150025	MONITOR AIRCRAFT AND	2K 17	0	10 P1	2K 31		0	10 P1
	TIME BOX SYMBOLS ON			10				10

	MFD AS AGCS ADJUSTS		10		10
	SPEED TO ACQUIRE NEW		10		10
	TIME SLOT		10		10
150026	REACH 220 KIAS		10		10
150027	HANDOFF TO ATLANTA	1R 16	0	10 *4 1P140039	0 10 *1
	APPROACH CONTROL	1P140040	4	10 *1 1R 24	6 10CP4
	-126.9	1R 40	6	10CP1 1P140041	6 10CP1
160001	TUNE ATLANTA	1B 07	0	10CP3 1B 08	0 10CP2
	APPROACH CONTROL	1B 09	2.88	10CP1	10
	-126.9			10	10
160000	TURN ON LANDING LTS	7G 17	0	10CP2	10
160002	TUNE ATIS -123.7	1A 07	0	10CP3 1A 08	0 10CP2
		1A 09	2.98	10CP1 1A 06	5 10CP1
		1A 17	6.43	10CP2 1A 15	8 10 *3
		1P160001	8	10 *1 1P160002	11.42 10 *1
		1P160003	15.98	10 *1 1P160004	20.54 10 *1
		1P160005	25.1	10 *1 1P160006	29.66 10 *1
160003	SET ALTIMETER BARO	1P160043	0	10CP1 1P 13	0 10 P3
	SETTING TO 29.84			10	10
160004	CONTACT ATLANTA AP-	1A 06	0	10CP1 1A 10	2.4 10CP4
	PROACH CONTROL	1A 12	2.4	10CP3 1P160007	2.4 10CP1
		1P160008	6.4	10CP1 1A 15	9 10 *4
		1N 07	12	10CP1 1P160009	9 10 *1
160005	DESCENT AND APPROACH	1P160043	0	10 P1 1P 02	0 10CP2
	CHECKLIST - 1	8B 02	2	10CP3 8B 05	8 10CP2
		8B 03	13	10CP1 1P160044	15 10CP1
		1P 10	15	10 P1 1P160045	17 10CP1
		1P 07	17	10 P4 8B 03	18 10CP1
		1P160046	20	10CP1 1P 13	20 10 P4
		7D 69	22	10CP1 7D 70	24.67 10CP1
		7E 08	26.69	10CP1 1P160047	28 10CP1
		1P 16	28	10 P1	10
160006	DESCENT AND APPROACH	8B 03	0	10CP1 1P160048	2 10CP1
	CHECKLIST - 2	1P 11	2	10 P3 7M 03	3 10 P3
		7M 06	6.54	10 P4 1P160049	8.5 10 P1
		1P 06	8.5	10CP4 8B 03	9 10CP1
		1P160050	11	10CP1 1P 12	11 10 P4
		7G 17	12	10CP2 1P160051	14.2 10CP1
		1P 16	14.2	10 P2 8B 03	14.5 10CP1
		1P160052	16.5	10CP1 1P 12	16.5 10 P2
		3H 02	18	10CP4 3H 05	20.37 10CP1
		1P160053	23.4	10CP1 1P 09	23.40 10 P1
160007	DESCENT AND APPROACH	8B 03	0	10CP1 1P160054	2 10CP1
	CHECKLIST - 3	1P 02	2	10 P1 8B010004	2 10CP1
		8B160001	5	10CP1 7F 26	10 10CP4
		7F 27	10.32	10CP1 7F 28	12.32 10CP4
		7F 29	12.64	10CP1 8B160002	15 10CP1
				3A 05	20 10CP2
		1P160055	20	10CP1 1P 14	20 10 P1
		3A 07	22	10 P2 3A 05	22 10 P3
		3A 13	25	10 P1 3A 12	25 10CP1
		1P160056	28	10CP1 1P 08	28 10 P2
		8B 03	29.6	10CP1 1P160057	29.6 10CP1
		1P 02	31.6	10 P4 8B 08	31.6 10CP1
		8B010005	34.6	10CP1	10
160008	CROSS NORCROSS VOR.	1B 18	0	10 *3 1P160010	0 10 *1
	RECEIVE INSTRUCTIONS	1P160011	4	10 *1 1B 25	6 10CP1
	TO TURN TO HDG 210	1B 17	6	10CP2 1P160012	6 10CP1
	AND TO SLOW TO 200			10	10
	KIAS			10	10

160009	TURN TO HDG 210 AND SLOW TO 200 KIAS			10		10
160010	TURN COMPLETE - ON HDG 210			10		10
160011	SET FLAPS TO FLAPS 1	1P160058	0	10 P1 1P	10	0 10CP2
	4E 07		1	10CP1 4E	15	3.69 10CP3
	4N 03		5.92	10CP2 4N	04	7.09 10CP2
	4E 16		8.26	CP1		
	1P160058		9.26	10CP1 1P	10	5 10 P2
	7F 30		7	10 P3 7F	25	7 10 P4
160012	REACH 200 KIAS	4B 07	0	10 P2		10
160013	SET NAV-1 TO RUNWAY 08 ILS -109.9	8B 06	0	10CP1 8B160003		6 10CP1
	5U 01		11	10CP3 5U	02	11 10CP3
	5U 03		14	10CP2 1P160059		16.5 10CP1
	1P 12		16.5	10 P1 5G	04	19 10 P1
	5H 02		16.5	10CP1		10
160014	SET NAV-2 TO REG VOR -111.8	5V 01	0	10CP3 5V	02	0 10CP2
	5V 03		2.93	10CP1 1P160060		5 10CP1
	1P 02		5	10 P2 5G	05	7 10 P1
	5H 03		5	10CP1		10
160015	RECEIVE INSTRUCTIONS TO SLOW TO 190 KIAS	1B 37	0	10 *2 1P160014		0 10 *1
	1B 14		4	10CP2 1B	15	4 10CP2
	1P160015		4	10CP1		10
160016	REDUCE SPEED	4B 07	0	10 P2		10
160017	SET FLAPS TO FLAPS 5	1P160061	0	10 P1 4E	09	1 10CP3
	1P160061		9.59	10CP1		10
160018	FLAP SET PROCEDURE	1P 10	0	10CP2 4N	03	3.69 10CP2
	4E 15		3.69	10CP3 4E	16	5.92 10CP1
	4N 04		8.42	10CP2		
	1P 10		6.03	10 P2 7F	25	7 10 P4
	7F 30		7.44	10 P3		10
160019	HANDOFF TO APPROACH CONTROL -127.25	1B 20	0	10 *1 1P160016		0 10 *1
	1P160017		4	10 *1 1B	26	6 10CP2
	1B 32		6	10CP2 1P160018		10 10CP1
	1B 01		10	10CP2 1B	02	10 10CP2
	1B 03		12.88	10CP1 1B	05	15 10CP1
	1B 28		16.5	10CP4 1B	32	16.5 10CP1
	1P160019		16.5	10CP1 1P160020		20 10CP1
	1B 19		22	10 *4 1P160021		22 10 *1
	1N 07		26	10CP1		10
160020	RECEIVE INSTRUCTIONS TO TURN TO HDG 270, REDUCE SPEED TO 170, AND TO DESCEND TO 4500 FT.	1B 19	0	10 *2 1P160022		0 10 *1
	1P160023		4	10 *1 1B	25	8 10CP3
	1B 17		8	10CP4 1P160024		8 10CP1
	1P160025		12	10CP1		10
160021	BEGIN TURN TO HDG 270			10		10
				10		10
160022	TURN COMPLETE - ON HDG 270. BEGIN DECELERATION TO 170.	4B 07	0	10 P2		10
				10		10
160023	REACH 170 KIAS			10		10
160024	BEGIN DESCENT TO 4500 FT.			10		10
				10		10
160025	SET FLAPS TO FLAPS 15	1P160062	0	10 P1 4E	11	1 10CP3
	1P160062		9.59	10CP1		10
160026	LEVEL OFF AT 4500 FT			10		10
160027	RECEIVE INSTRUCTIONS TO SLOW TO 160 KIAS.	1B 37	0	10 *2 1P160063		0 10 *1
	1B 14		4	10CP2 1B	15	4 10CP2
	1P160064		4	10CP1		10
160028	REDUCE THRUST	4B 07	0	10 P2		10

160029	REACH 160 KIAS	4B	07	0	10 P2		10
160030	RECEIVE INSTRUCTIONS	1B	18	0	10 *4	1P160026	0 10 *1
	TO TURN TO HDG 180	1B	26	4	10CP2 1B	32	4 10CP2
		1P160027		4	10CP1		10
160031	TURN TO HDG 180				10		10
160032	TURN COMPLETE - ON				10		10
	HDG 180				10		10
160033	RECEIVE FINAL	1B	37	0	10 *3	1P160028	0 10 *1
	APPROACH INSTRUCTION	1P160029		3.21	10 *1	1P160030	7.49 10 *1
		1P160031		11.77	10 *1	1B 26	15 10CP1
		1B 17		15	10CP1	1P160032	15 10CP1
		1P160033		19	10CP1		10
160034	TUNE ATLANTA TOWER	1B	07	0	10CP3 1B	08	0 10CP2
	-119.5	1B	09	2.88	10CP1		10
160035	BEGIN TURN TO HDG				10		10
	120				10		10
160036	TURN COMPLETE - ON				10		10
	HDG 120				10		10
160037	CAPTURE ILS LOC	3R	59	0	10CP1	1P160067	2.6 10CP1
	BEGIN TURN TO	1P	02	2.6	10 P4 3R	16	0 10 P3
	HDG 090	3S	01	0	10 P2 4A	28	0 10 P2
		1P	02	6.50	10CP2 3S	11	6.53 10 P2
					10	1P160068	6.53 10 P1
		3V	06	4	10 P1 3R	16	10 10 P3
		3S	01	10	10 P2 4A	28	10 10 P2
160038	SET DECISION HEIGHT				10		10
	ON RADIO ALTIMETER				10		10
160039	SET ADF-1 TO LAKE-	5D	17	0	10CP3 5D	22	3 10CP1
	SIDE -375KC	5D	01	3.77	10CP2 5D	02	5.75 10CP3
		1P160065		7.73	10CP1 1P	02	7.73 10 P1
160040	SET ADF-2 TO LAKE-	5E	17	0	10CP2 5E	01	3 10CP2
	SIDE -375	5E	02	3	10CP3 5E	20	3 10CP1
		1P160066		5	10CP1 1P	02	5 10 P1
160041	MON VOR/RMI-1	5G	04	0	10 P2 5G	05	0 10 P2
160042	MON ADF/RMI-1	5D	28	0	10 P2 5D	29	0 10 P2
160043	TUNE NAV-1 TO RWY 08	5U	01	0	10CP3 5U	02	0 10CP3
	ILS -109.9	5U	03	3	10CP2 1P160069		5 10CP1
		1P	02	5	10 P1		10
160044	TURN COMPLETE - ON				10		10
	HDG.090 -RWY 08 HDG				10		10
160045	ANNUNCIATOR RECALL	7A	28	0	10CP1 7A	36	2.28 10CP1
160046	CONTROL AIRCRAFT ON	3R	16	0	10 P2 3S	01	0 10 P2
	FINAL APP - A (10)	4A	30	0	10 P2		10
160047	MON INSTRUMENTS ON	3R	62	0	10CP1 3S	04	0 10CP2
	FINAL APP	3R	63	0	10CP1 3A	10	0 10CP2
		3H	07	0	10CP1 3L	02	0 10CP2
160048	MON ADF/RMI-2	5E	26	0	10CP1		10
160049	MON RADIO ALTIMETER	3J	01	0	10CP1		10
160050	RECEIVE INSTRUCTIONS	1B	18	0	10 *4	1P160034	0 10 *1
	TO SLOW TO 150	1B	14	4	10CP2 1B	15	4 10CP2
		1P160035		4	10CP1		10
160051	REDUCE SPEED TO 150	4B	07	0	10 P2 3A	01	0 10 P1
	KIAS				10		10
160052	REACH 150 KIAS	3A	01	0	10 P1 4B	07	0 10 P2
160053	SET FLAPS TO FLAPS	1P160070		0	10 P1 4E	12	1 10CP1
	25	1P160070		9.59	10CP1		10
160054	ACQUIRE GLIDESLOPE	3R	60	2	10 P1 3R	60	0 10CP1
		1P160071		2.6	10CP1 1P	10	2.6 10 P1
		3V	09	4.58	10 P1		10
160055	RECEIVE INSTRUCTIONS	1B	18	0	10 *4	1P160036	0 10 *1

	TO MAINTAIN CURRENT	1B	14	8	10CP4	1B	20	8	10CP3
	SPEED	1P160037		8	10CP1			10	
160056	BEGIN DECELERATION	1P160072		0	10CP1	1P	10	0	10 P1
	TO 135 KNOTS	4B	07	1	10 P2	3A	01	1	10 P1
160057	SET FLAPS TO FLAPS	1P160073		0	10 P1	4E	14	1	10CP1
	40	1P160073		9.59	10CP1			10	
160058	REPORT RUNWAY IN	8A	01	0	10CP1	1P160074		2	10CP1
	SIGHT	1P	10	2	10 P1				
160059	CROSS RWY XX OUTER	3V	11	0	10 P2	1P160075		2	10 P1
	MARKER	1P	13	2	10CP4	3N	03	0	10 P1
		3V	06	0	10 P1	3V	09	0	10 P1
160060	EXTEND LANDING GEAR	4D	03	0	10CP3	4D	05	3	10CP2
		4D	09	3.5	10CP3			10	
160061	CONTACT TOWER FOR	1B	05	0	10CP4	1B	25	2.4	10CP1
	FINAL LANDING CLEAR-	1B	17	2.4	10CP2	1P160038		6.4	10CP1
	ANCE	1B	19	10.4	10 *2	1P160040		10.4	10 *1
		1P160041		14.4	10 *1	1B	29	17.4	10CP1
		1B	15	17.4	10CP4	1P160037		17.4	10CP1
160062	LANDING CHECKLIST					1P160076		0	10CP1
		1P	10	0	10 P4	1P160077		.6	10CP1
		1P	14	.6	10 P2				
		1P160078		1.0	10CP1	1P	10	1.0	10 P2
		1P160079		1.7	10 P1	1P	02	1.7	10CP4
						1P160080		3.0	10CP1
		1P	10	3.0	10 P2	1P160081		5.7	10CP1
		1P	10	5.7	10 P1				
		1P160082		4.7	10CP1	1P	14	4.7	10 P2
		1P160083		5.1	10CP1	1P	12	5.1	10 P4
		1P160084		6.2	10CP1	1P	12	6.2	10 P4
160063	DESCEND THRU 500 FT	1P160085		0	10CP1	1P	14	0	10 P3
	ABOVE RWY			10				10	
160064	CROSS RWY 08 MIDDLE	3V	13	0	10 P1	3V	13	0	10CP1
	MARKER			10				10	
160065	DESCEND THRU	3R	12	0	10CP3	1P160086		2.58	10CP1
	-DECISION HEIGHT	1P	11	2.58	10 P2			10	
160066	CONTROL AIRCRAFT	4A	68	0	10 P1				
	THRU TOUCHDOWN			10				10	
160067	CROSS END OF RWY 08			10				10	
160068	TOUCHDOWN	4B	08	0	10 P1	4A	31	0	10 P1
		4C	01	2.5	10 P2	4C	02	24	10 P1
		4F	01	28	10 P3	4M	04	0	10 P4
		8A	02	0	10 P1			10	
160069	SET SPEED BRAKES	4F	02	0	10 P3	4F	07	0	10 P2
160070	SET AUTO BRAKES	4D	43	0	10CP1	4D	40	2.62	10CP1
160071	HANDOFF TO GROUND	1B	18	0	10 *3	1P160087		0	10 *1
	CONTROL -121.9	1P160088		3.5	10 *1	1B	14	6	10CP2
		1B	15	6	10CP2	1P160089		6	10CP1
		1B	01	9	10CP3	1B	02	9	10CP2
		1B	03	11.88	10CP1	1B	05	14	10CP1
		1B	29	15.50	10CP2	1B	16	15.5	10CP1
		1P160090		15.5	10CP1	1B	18	20	10 *4
		1P160091		20	10 *1	1P160092		23.5	10 *1
		1B	29	25	10CP1	1B	15	25	10CP4
		1P160037		25	10CP1			10	
160072	CONTROL AIRCRAFT ON	3R	16	0	10 P4	3S	04	0	10 P4
	FINAL APP - B(240)	4A	30	0	10 P4			10	
160073	CONTROL A/C ON FINAL	4A	30	0	10 P1	3R	61	0	10 P2
	APPROACH - C (5)	3S	04	0	10 P2			10	
160074	SET AUTO BRAKES	4D	43	0	10 P1	4D	40	2.62	10 P1
160075	MAN CNTRL A/C	4A	31	00	10 P4	8A	08	00	10 P4

160076 CAPTURE LOC	3R	59	0	10CP1	1P160067	0	10CP1
	1P	02	2.6	10 P1	3V	06	2.0 10 P2
160077 MON INSTRUMENTS ON	3R	62	0	10CP3	3S	17	0 10CP1
FINAL APP - CP	3R	63	0	10CP3	3A	10	0 10CP3
	3H	06	0	10CP3	3L	02	0 10CP3
160078 MON INSTRUMENTS ON	3R	62	0	10CP4	3S	15	0 10CP1
FINAL APP - CP	3R	63	0	10CP4	3A	10	0 10CP4
	3H	06	0	10CP4	3L	02	0 10CP4
160079 MON INSTRUMENTS ON	3R	62	0	10 P2	3S	01	0 10 P2
FINAL APP - P	3R	63	0	10 P1	3A	10	0 10 P1
	3H	06	0	10 P2	3L	02	0 10 P1
160080 MON INSTRUMENTS ON	3R	62	0	10 P3	3S	17	0 10 P1
FINAL APP - P	3R	63	0	10 P3	3A	10	0 10 P3
	3H	06	0	10 P3	3L	02	0 10 P3
160081 MON INSTRUMENTS ON	3R	62	0	10 P4	3S	15	0 10 P1
FINAL APP - P	3R	63	0	10 P4	3A	10	0 10 P4
	3H	06	0	10 P4	3L	02	0 10 P4
160082 CONTROL A/C ON FINAL	4A	69	0	10 P3	3R	62	0 10 P3
APPROACH - PILOT	3R	63	0	10 P3	3A	10	0 10 P3
(30 SEC)	3H	06	0	10 P3	3L	02	0 10 P3
	3S	01	0	10 P3			10
160083 CONTROL A/C ON FINAL	4A	69	0	10 P4	3R	62	0 10 P4
APPROACH - PILOT	3R	63	0	10 P4	3A	10	0 10 P4
(60 SEC)	3H	06	0	10 P4	3L	02	0 10 P4
	3S	15	0	10 P1			10
160084 CONTROL A/C ON FINAL	4A	78	0	10CP1	3R	62	0 10CP3
APPROACH - CO-PILOT	3R	63	0	10CP3	3A	10	0 10CP3
	3H	06	0	10CP3	3L	02	0 10CP3
	3S	17	0	10CP1			10
160085 CONTROL A/C ON FINAL	4A	78	0	10CP2	3R	62	0 10CP4
APPROACH - CO-PILOT	3R	63	0	10CP4	3A	10	0 10CP4
	3H	06	0	10CP4	3L	02	0 10CP4
	3S	15	0	10CP1			10
160086 CONTACT TOWER FOR	1B	05	0	10 P4	1B	25	2.4 10 P1
FINAL LANDING CLEAR-	1B	17	2.4	10 P2	1P160038		6.4 10 P1
ANCE	1P	17	10.4	10 *3	1P160040		10.4 10 *1
	1P160041		14.4	10 *1	1B	29	16 10 P1
	1B	15	16	10 P4	1P160037		16 10 P1
160087 LANDING CHECKLIST	8B090001		0	10 P1	1P160076		2 10 P1
	1P	10	2	10CP4	1P160077		2.6 10 P1
	1P	14	2.6	10CP2	8B090001		3 10 P1
	1P160078		5	10 P1	1P	10	5 10CP2
	1P160079		6	10CP1	1P	02	6 10 P4
	8B090001		7.5	10 P1	1P160080		9.5 10 P1
	1P	10	9.5	10CP2	1P160081		10.2 10 P1
	1P	10	10.2	10CP1	8B090001		11.2 10 P1
	1P160082		13.2	10 P1	1P	14	13.2 10CP2
	1P160083		13.6	10 P1	1P	12	13.6 10CP4
	8B090001		14.1	10 P1	1P160084		16.1 10 P1
	1P	12	16.1	10CP4			10
160088 CONTROL AIRCRAFT - A	4A	64	0	10 P3	3R	64	0 10 P1
(5 SEC PROC)							
160089 CONTROL AIRCRAFT - B	4A	64	0	10 P2	3R	64	0 10 P2
(10 SEC PROC)							
160090 CONTROL AIRCRAFT - C	4A	64	0	10 P4	3R	64	0 10 P3
(30 SEC PROC)							
160091 CONTROL AIRCRAFT - D	4A	65	0	10 P1	3R	64	0 10 P4
(60 SEC PROC)							
160092 CONTROL AIRCRAFT - E	4A	65	0	10 P4	3R	65	0 10 P1
(60 SEC PROC)							

160093	CONTROL AIRCRAFT - F 4A	65	0	10 P3 3R	65	0	10 P2
	(120 SEC PROC)			10			10
160094	CONTROL AIRCRAFT 4A	68	0	10 P1 8A	06	0	10 P3
	THRU TOUCHDOWN						
160095	REPORT RUNWAY IN 8A	01	0	10CP1 1P160074		2	10CP1
	SIGHT 1P	10	2	10 P1 8A	01	2	10 P3
16EK00	PILOT INCAPACITATION			10			10
16EK01	ADVISE APPROACH CON-	1B 26	0	10CP3 1B	32	0	10CP3
	TROL OF PILOT INCA-	1P16EK01	0	10CP1 1P16EK02		3	10CP1
	PACITATION	1P16EK03	7	10CP1 1B	19	12	10CP1
		1P16EK04	12	10CP1 1P16EK05		15	10CP1
		1P16EK06	19	10CP1			10
16EK02	CONTROL AIRCRAFT -A1 4A	72	0	10CP2 8A	03	0	10CP2
		3R 10	0	10CP1 3A	10	0	10CP2
		3L 02	0	10CP1 3A	10	0	10CP1
16EK03	COMPLETE TURN. BEGIN 4B	07	0	10CP1			10
	DECELERATION.			10			10
16EK04	REACH 170 KIAS. SET			10			10
	THRUST TO FLIGHT			10			10
	IDLE.			10			10
16EK05	BEGIN DESCENT TO			10			10
	4500 FT.			10			10
16EK06	ALTITUDE CHANGE 4A	72	0	10CP2 3L	02	0	10CP1
	PROCEDURE - A 3H	02	0	10CP1 3R	10	0	10CP4
		4B 07	0	10CP1 3F	01	0	10CP3
16EK07	SET FLAPS 15 4E	11	0	10CP4			10
16EK08	FLAP SET PROC. - A 4E	15	3	10CP3 4N	05	6.40	10CP1
16EK09	CONTROL AIRCRAFT -F1 4A	73	0	10CP2 8A	09	0	10CP1
		3R 57	0	10CP1 3S	15	0	10CP3
		3L 03	0	10CP2 3A	11	0	10CP2
16EK10	CONTROL AIRCRAFT -D1 4A	72	0	10CP4 8A	09	0	10CP2
		3R 56	0	10CP3 3S	15	0	10CP1
		3L 02	0	10CP4 3A	10	0	10CP4
16EK11	LEVEL OFF AT 4500 FT			10			10
16EK12	CONTROL AIRCRAFT 4A	72	0	10CP3 8A	09	0	10CP4
		3R 57	0	10CP3 3S	15	0	10CP4
		3L 04	0	10CP2 3A	11	0	10CP4
16EK13	REDUCE THRUST 4B	07	0	10CP1			10
16EK14	REACH 160 KIAS 4B	07	0	10CP1			10
16EK15	MON VOR/RMI-2 5H	02	0	10CP3 5H	03	0	10CP3
16EK16	MON ADF/RMI-2 5E	26	0	10CP2 5E	27	0	10CP2
16EK17	BEGIN TURN TO HDG			10			10
	150			10			10
16EK18	HEADING CHANGE PROC- 3S	01	0	10CP2 4A	74	0	10CP2
	A 3L	02	0	10CP1 3S	11	5	10CP3
		3R 58	0	10CP1			10
16EK19	TURN COMPLETED - ON			10			10
	HDG 180.			10			10
16EK20	CONTROL AIRCRAFT -B1 4A	72	0	10CP1 8A	09	0	10CP3
		3R 56	0	10CP1 3L	02	0	10CP2
		3A 10	0	10CP2 3S	01	0	10CP3
16EK21	BEGIN TURN TO HDG			10			10
	120			10			10
16EK22	TURN COMPLETED - ON			10			10
	HDG 120			10			10
16EK23	CAPTURE ILS LOCALI- 3R	59	0	10CP1 3R	16	0	10CP3
	ZER. BEGIN TURN TO 3S	04	0	10CP3 4A	74	0	10CP2
	HDG 090. 3R	16	10	10CP3 3S	04	10	10CP3
		4A 74	10	10CP2 3S	11	5	10CP3
		3V 06	0	10CP1			10

16EK24	TURN COMPLETED - ON			10			10
	HDG 090 -RWY 08 HDG			10			10
16EK25	CONTROL AIRCRAFT ON	3R	16	0	10CP3	3S	04
	FINAL APPROACH - A1	4A	75	0	10CP2	8A	03
16EK26	CONTROL AIRCRAFT ON	3R	16	0	10CP4	3S	04
	FINAL APPROACH - B1	4A	75	0	10CP4	8A	03
16EK27	REDUCE SPEED TO 150	4B	07	0	10CP1		
	KIAS.				10		
16EK28	REACH 150 KIAS	4B	07	0	10CP1		
16EK29	SET FLAPS 25	4E	12	0	10CP1		
16EK30	ACQUIRE GLIDE SLOPE	3V	09	0	10CP1	3R	60
16EK31	CROSS STUBBS. BEGIN	4B	07	0	10CP1		
	DECCELERATION TO 135				10		
	KIAS.				10		
16EK32	SET FLAPS 40	4E	14	0	10CP1		
16EK33	CROSS OUTER MARKER	3V	11	0	10CP1		
16EK34	SET SPEED BRAKES	4F	02	0	10CP2		
		4F	07	4	10CP3		
16EK35	LANDING CHECKLIST -	8B090001		0	10CP1	1P160076	2
	PILOT INCAPACITATED	1P160077		2.6	10CP1	8B090001	3
		1P160078		5	10CP1	1P160079	5.7
		8B090001		7	10CP1	1P160080	9
		1P160081		9.7	10CP1	8B090001	13.7
		1P160082		14.1	10CP1	1P160083	14.1
		8B090001		15.2	10CP1	1P160084	17.2
16EK36	CROSS MIDDLE MARKER	3V	13	0	10CP1		
16EK37	DESCEND THRU 1200 FT	3R	12	0	10CP1		
	- DECISION HEIGHT				10		
16EK38	CONTROL AIRCRAFT	8A	03	0	10CP4	4A	72
	THRU TOUCHDOWN				10		
16EK39	CROSS END OF RUNWAY				10		
16EK40	TOUCHDOWN AND ROLL	4B	08	0	10CP2	4A	68
	OUT	4C	01	2.5	10CP3	4C	02
		4D	28	60	10CP3	4M	03
		8A	07	0	10CP1		
16EK41					10		
16EK42					10		
16EK43					10		
16EK44					10		
16EK45					10		
16EK46					10		
16EK47					10		
16EK48					10		
16EK49					10		
16EK50	ADVISE ATC OF PILOT	1R	30	0	10CP4	1R	40
	INCAPACITATION	1P16EK01		0	10CP1	1P16EK02	3
		1P16EK03		11	10CP1	1R	35
		1P16EK04		11	10CP1	1P16EK05	14
		1P16EK06		18	10CP1		
16EK51	MONITOR AUTO HEADING	2K	14	0	10CP2	2K	33
	CHANGE	2K	47	0	10CP1	2K	52
16EK52	SET EADI FOR ILS	2J	31	0	10CP3	2J	25
	APPROACH	2J	13	4.82	10CP1		
16EK53	FLIGHT INSTRUMENT	2J	02	0	10CP2	3L	02
	SCAN - B	3A	10	0	10CP1	2K	14
		2K	46	0	10CP1		
16EK54	CAPTURE ILS LOCALI-	2K	09	0	10CP1		
	ZER				10		
16EK55	CROSS STUBBS. AGCS				10		

	BEGINS PROGRAMMED			10			10
	DECELERATION TO 135			10			10
	KIAS			10			10
16EK56	SET AGCS TO AUTO	2H	10	0	10CP2 2H	11	2.13 10CP1
	LAND MODE - A	2H	51	3.18	10CP1 2J	13	3.96 10CP1
16EK57	CROSS MIDDLE MARKER	3V	13	0	10CP1		10
16EK58	DESCEND THRU DECI-	2J	22	0	10CP1		10
	SION HEIGHT			10			10
16EK59	DISENGAGE AGCS - A	2H	10	0	10CP2 2H	13	2.13 10CP1
		2H	01	3.18	10CP3 2H	02	4.62 10CP1
		2H	09	5.67	10CP1 4A	64	0 10CP2
		4A	64	10	10CP3		10
16EK60	SET ADF-1 TO LAKE-	5D	17	0	10CP3 5D	22	3 10CP1
	SIDE -375KC	5D	01	3.77	10CP2 5D	02	5.75 10CP3
		1P160065		7.73	10CP1		10
16EK61	SET ADF-2 TO LAKE-	5E	17	0	10CP2 5E	01	3 10CP2
	SIDE -375	5E	02	3	10CP3 5E	20	3 10CP1
		1P160066		5	10CP1		10
16EK62	RECEIVE INSTRUCTIONS	1B	18	0	10CP4 1P160036		0 10CP1
	TO MAINTAIN CURRENT	1B	14	8	10CP4 1B	20	8 10CP3
	SPEED	1P160037		8	10CP1		10
16EK63	HANDOFF TO GROUND	1B	18	0	10CP3 1P160037		0 10CP1
	CONTROL -121.9	1P160088		3.5	10CP1 1B	14	6 10CP2
		1B	15	6	10CP2 1P160089		6 10CP1
		1B	01	9	10CP3 1B	02	9 10CP2
		1B	03	11.88	10CP1 1B	05	14 10CP1
		1B	29	15.50	10CP2 1B	16	15.5 10CP1
		1P160090		15.5	10CP1 1B	18	20 10CP4
		1P160091		20	10CP1 1P160092		23.5 10CP1
		1B	29	25	10CP1 1B	15	25 10CP4
		1P160037		25	10CP1		10
16EK64	RECEIVE FINAL	1B	37	0	10CP3 1P160028		0 10CP1
	APPROACH INSTRUCTION	1P160029		3.21	10CP1 1P160030		7.49 10CP1
		1P160031		11.77	10CP1 1B	26	15 10CP1
		1B	17	15	10CP1 1P160032		15 10CP1
		1P160033		19	10CP1		10
16EK65	CROSS RWY 08 OUTER	3V	11	0	10CP1 1P160075		2 10CP1
	MARKER	1P	13	2	10CP4		10
16EK66	CONTACT TOWER FOR	1B	05	0	10CP4 1B	25	2.4 10CP1
	FINAL LANDING CLEAR-	1B	17	2.4	10CP2 1P160038		6.4 10CP1
	ANCE	1B	19	9	10CP2 1P160040		9 10CP1
		1P160041		13	10CP1 1B	29	16 10CP1
		1B	15	16	10CP4 1P160037		16 10CP1
16EK67	RECEIVE INSTRUCTIONS	1B	37	0	10CP2 1P160063		0 10CP1
	TO SLOW TO 160 KIAS.	1B	14	4	10CP2 1B	15	4 10CP2
		1P160064		4	10CP1		10
16EK68	RECEIVE INSTRUCTIONS	1B	18	0	10CP4 1P160026		0 10CP1
	TO TURN TO HDG 180	1B	26	4	10CP2 1B	32	4 10CP2
		1P160027		4	10CP1		10
16EK69	RECEIVE INSTRUCTIONS	1B	18	0	10CP4 1P160034		0 10CP1
	TO SLOW TO 150	1B	14	4	10CP2 1B	15	4 10CP2
		1P160035		4	10CP1		10
16FB01	LANDING GEAR FAIL TO	4D	03	00	10CP3 4D	07	3.27 10CP1
	EXTEND	4D	11	3.27	10CP1 4D	05	5.54 10CP1
		4D	09	5.54	10CP3		10
16FB02	CP REPORT GEAR MAL-	1P16FB01		00	10CP1 1P	13	00 10 P3
	FUNCTION			10			10
16FB03	RECYCLE GEAR	4D	01	00	10CP1 4D	07	13.06 10CP2
		4D	11	13.06	10CP1 4D	08	13.60 10CP1
		4D	12	13.60	10CP1 4D	03	14.14 10CP2

	4D 05	21.67	10CP2 4D 11	21.67	10CP1
	1P16FB02	22.21	10CP1 1P 15	22.21	10 P4
16FB04 INITIATE GO-AROUND	1P16FB03	.41	10 P1 1P 15	.41	10CP4
BY PILOT	4B 06	.41	10 P1		10
16FB05 COPILOT GOAROUND	3H 02	00	10CP1 7F 27	00	10CP2
ACTIVITIES	7F 29	00	10CP2 4E 11	00	10CP3
	3A 10	00	10CP1 7G 40	00	10CP1
	4E 15	1.40	10CP1		10
	1P16FB04	7.80	10CP1		10
	1P 10	7.80	10 P2 4D 01	9.80	10CP1
	4D 07	9.80	10CP1 4D 11	9.80	10CP1
	4B 07	12.86	10CP2 1P16FB05	15.15	10CP1
	1P 16	15.15	10 P2 4D 08	19.80	10CP1
	4D 12	19.80	10CP1 1P16FB06	19.80	10CP1
	1P 02	19.80	10 P2		10
16FB06 PILOT/GRD GOAROUND	1B 24	0	10 P4 1B 16	0	10 P1
COMMUNICATIONS	1P16FB07	0	10 P1 1B 20	3.5	10 *2
	1P16FB08	3.5	10 *1 1B 38	8.9	10 P1
	1B 39	8.9	10 P1 1P16FB09	8.9	10 P1
	1P16FB21	14.4	10 P1		10
16FB07 P/CP GOAROUND	1P16FB10	0	10 P1 1P 19	0	10CP3
COMMUNICATIONS			10		10
16FB08 CP FLAP SET AND	4E 09	0	10CP3 4E 15	2.69	10CP3
CALLOUTS	1P16FB11	4.92	10CP1 1P 07	5.00	10CP1
	4B 07	5.08	10CP1 7F 25	7.81	10CP2
	7F 30	7.81	10CP2 3H 06	9.89	10CP1
	1P16FB12	16.89	10CP1 1P 07	16.89	10 P1
16FB09 LEVEL OFF AT 3000			10		10
16FB10 CP RADIO COMMUNICAT-	1B 24	0	10CP2 1B 16	0	10CP4
IONS	1P16FB13	0	10CP1		10
16FB11 ATL TWR HANDOFF	1B 32	0	10 *4 1P16FB14	0	10 *1
	1P16FB15	7.5	10CP1 1P 06	7.5	10 P3
	3A 10	7.5	10 P1 4B 07	7.5	10 P2
	1B 25	9.5	10CP1 1B 17	9.5	10CP2
	1P16FB16	9.5	10CP1 4G 04	9.61	10 P1
	3H 02	9.61	10 P2 4G 13	10.38	10 P4
16FB12 TURN TO MISSED			10		10
APPROACH HEADING			10		10
16FB13 CP SELECT VHF-3	1B 05	0	10CP1		10
16FB14 TURN COMPLETE			10		10
16FB15 MANUAL GEAR EXTEND	1P16FB17	0	10 P1 1P 02	0	10CP1
PROCEDURE	8B 02	0	10CP3 8B 05	5.9	10CP2
	8B 03	10.9	10CP1 1P16FB18	12.9	10CP1
	1P 10	12.9	10 P1 8B 03	14.17	10CP1
	1P16FB19	16.17	10CP1 1P 12	16.17	10 P2
	4D 14	16.17	10CP1 4D 16	19.67	10CP1
	4D 11	20.37	10CP1 4D 17	21.17	10CP1
	4D 07	21.97	10CP1 4D 18	22.77	10CP1
	4D 11	23.57	10CP1 8B 03	25.57	10CP1
	4D 06	26.17	10CP1 4D 03	27.57	10CP1
	4D 09	27.57	10CP3 4D 08	30.84	10CP1
	4D 12	30.84	10CP1 1P16FB20	32.84	10CP1
	1P 10	32.84	10 P3 4D 15	34.04	10CP1
170001 RECEIVE INSTRUCTIONS	1B 37	0	10 *2 1P170001	0	10 *1
TO SLOW TO 200 KIAS	1B 26	4	10CP2 1B 32	4	10CP2
	1P170002	4	10CP1		10
170002 ADJUST THRUST	4B 07	0	10 P2		10
170003 REACH 210 KIAS			10		10
170004 REACH 200 KIAS			10		10
170005 CROSS NORCROSS VOR.	1B 37	0	10 *4 1P170003	0	10 *1

	RECEIVE INSTRUCTIONS	1B	24	4	10CP2	1B	16	4	10CP4
	TO TURN TO HDG 210.	1P170004		4	10CP1				10
170006	TURN COMPLETED - ON				10				10
	HDG 210				10				10
170007	TUNE NAV RADIOS FOR	8B	06	0	10CP1	8B160003		6	10CP1
	MLS APPROACH.	5U	01	11	10CP3	5U	02	11	10CP3
		5U	03	14	10CP2	5V	01	44	10CP3
		5V	02	44	10CP2	5V	03	46.93	10CP1
		1P170026		49	10CP1	1P	02	49	10 P3
170008	RECEIVE INSTRUCTIONS	1B	19	0	10 *2	1P170005		0	10 *1
	TO TURN, REDUCE SPD,	1P170006		3.5	10 *1	1B	26	7	10CP4
	AND DESCEND.	1B	32	7	10CP4	1P170007		7	10CP1
		1P170008		11	10CP1				10
170009	BEGIN TURN TO HDG				10				10
	270				10				10
170010	TURN COMPLETED - ON	4B	07	0	10 P2				10
	HDG 270. BEGIN DE-				10				10
	CCELERATION				10				10
170011	REACH 190 KIAS				10				10
170012	REACH 180 KIAS.				10				10
	BEGIN DESCENT TO				10				10
	6000 FT				10				10
170013	LEVEL OFF AT 6000 FT				10				10
170014	MLS ACQUISTION	3R	59	0	10CP1	1P160067		2.5	10CP1
		1P	02	2.5	10 P4				10
170015	RECEIVE INSTRUCTIONS	1B	18	0	10 *3	1P170009		0	10 *1
	TO TURN TO HDG 180,	1B	25	6	10CP2	1B	17	6	10CP3
	DESCEND TO 3600 FT.	1P170011		6	10CP1	1P170012		9.5	10CP1
170016	BEGIN TURN TO HDG				10				10
	180 AND DESCENT TO				10				10
	3600 FT.				10				10
170017	TURN COMPLETED - ON				10				10
	HDG 180				10				10
170018	LEVEL OFF AT 3600 FT				10				10
170019	RECEIVE INSTRUCTIONS	1B	18	0	10 *4	1P170013		0	10 *1
	TO REDUCE SPEED TO	1B	26	4	10CP2	1B	32	4	10CP2
	160 KIAS	1P170014		4	10CP1				10
170020	REACH 170 KIAS				10				10
170021	RECEIVE FINAL CLEAR-	1B	19	0	10 *4	1P170015		0	10 *1
	ANCE	1P170016		3	10 *1	1P170017		7	10 *1
		1B	25	10	10CP1	1B	17	10	10CP2
		1P170018		10	10CP1	1P170019		14	10CP1
		1B	07	15	10CP3	1B	08	15	10CP2
		1B	09	17.88	10CP1				10
170022	BEGIN RUNWAY 08	3R	16	0	10 P2	3S	01	0	10 P2
	CENTERLINE ACQUISI-	4A	28	0	10 P2	3S	11	5	10 P2
	TION TURN	3R	16	10	10 P3	3S	01	10	10 P2
		4A	28	10	10 P2	3R	16	20	10 P2
		3S	01	20	10 P2	4A	28	20	10 P2
		3R	16	30	10 P3	3S	01	30	10 P2
		4A	28	30	10 P2	3R	16	40	10 P3
		3S	01	40	10 P2	4A	28	40	10 P2
170023	RECEIVE INSTRUCTIONS	1B	32	0	10 *1	1P170020		0	10 *1
	TO MAINTAIN SPEED	1P170021		3.5	10 *1	1B	14	4.5	10CP4
		1B	15	4.5	10CP4	1P160037		4.5	10CP1
					10				10
170024	TURN COMPLETED -				10 P2				10
170025	CROSS APPROACH GATE.	4B	07	0	10				10
	BEGIN DECELERATION.				10				10
170026	CONTACT TOWER	1B	06	0	10CP4	1B	28	2.39	10CP1
		1B	17	2.39	10CP2	1P170022		2.39	10CP1

		1P170023	6.39	10CP1 1B	19	8	10	*2
		1P170024	8	10 *1 1P170025		11.50	10	*1
170027	BEGIN 6 DEG FIRST			10			10	
	SEGMENT MLS APPROCH			10			10	
	DESCENT			10			10	
170028	REACH 135 KIAS			10			10	
170029	BEGIN TRANSITION TO			10			10	
	3 DEG SECOND SEGMENT			10			10	
	MLS APPROCH DESCENT			10			10	
170030	COMPLETE TRANSITION			10			10	
170031	CONTROL AIRCRAFT ON	4A 69	0	10 P1 2J	02	0	10	P4
	FINAL APP -180	3L 04	0	10 P3 3A	14	0	10	P2
		2J 05	0	10 P4 2J	19	0	10	P4
		2K 14	0	10 P4 2K	46	0	10	P3
170032	CONTROL AIRCRAFT ON	2K 33	0	10 P3 2J	01	0	10	P4
	FINAL APP -30	4A 69	0	10 P3 2J	02	0	10	P3
		3L 02	0	10 P3 3A	10	0	10	P3
		2J 05	0	10 P3 2J	19	0	10	P3
		2K 14	0	10 P3 2K	46	0	10	P2
170033	CONTROL AIRCRAFT ON	2K 33	0	10 P2 2J	01	0	10	P3
	FINAL APP -10	4A 30	0	10 P2 2J	02	0	10	P2
		3L 02	0	10 P1 3A	10	0	10	P1
		2J 05	0	10 P2 2J	19	0	10	P2
		2K 14	0	10 P2 2K	46	0	10	P1
170034	CONTROL AIRCRAFT ON	2K 33	0	10 P1 2J	01	0	10	P2
	FINAL APP -60	4A 69	0	10 P4 2J	02	0	10	P3
		3L 02	0	10 P4 3A	10	0	10	P4
		2J 04	0	10 P4 2J	19	0	10	P3
		2K 15	0	10 P2 2K	46	0	10	P4
		2K 33	0	10 P4 2J	01	0	10	P3
17EK00	PILOT INCAPACITATED			10			10	
17EK01	ADVISE APPROACH CON-	1B 26	0	10CP3 1B	32	0	10CP3	
	TROL OF PILOT INCA-	1P16EK01	0	10CP1 1P16EK07		3	10CP1	
	PACITATION	1P16EK03	7	10CP1 1B	19	12	10CP4	
		1P16EK04	12	10CP1 1P16EK08		15	10CP1	
		1P16EK06	19	10CP1			10	
17EK02	MLS ACQUISITION			10			10	
17EK03	BEGIN TURN TO HDG			10			10	
	180 AND DESCENT TO			10			10	
	3600 FT			10			10	
17EK04	TURN COMPLETED - ON			10			10	
	HDG 180			10			10	
17EK05	LEVEL OFF AT 3600 FT			10			10	
17EK06	REACH 170 KIAS			10			10	
17EK07	BEGIN RUNWAY CENTER-	3R 16	0	10CP3 3S	04	0	10CP3	
	LINE ACQUISITION	4A 28	0	10CP2 3S	11	5	10CP3	
	TURN	3R 16	10	10CP3 3S	04	10	10CP3	
		4A 74	10	10CP2 3R	16	20	10CP3	
		3S 04	20	10CP3 4A	74	20	10CP2	
		3R 16	30	10CP3 3S	04	30	10CP3	
		4A 74	30	10CP2 3R	16	40	10CP3	
		3S 04	40	10CP3 4A	74	40	10CP2	
17EK08	TURN COMPLETED			10			10	
17EK09	CONTROL AIRCRAFT ON	3R 61	0	10CP1 3S	17	0	10CP3	
	FINAL APPROACH - X	4A 69	0	10CP2			10	
17EK10	CROSS APPROACH GATE.	4B 07	0	10CP1			10	
	BEGIN DECELERATION.			10			10	
17EK11	BEGIN 6 DEG FIRST			10			10	
	SEGMENT MLS APPROACH			10			10	
	DESCENT			10			10	

17EK12	REACH 135 KIAS			10		10
17EK13	BEGIN TRANSITION TO			10		10
	3 DEG SECOND SEGMENT			10		10
	MLS APPROACH DESCENT			10		10
17EK14	COMPLETE TRANSITION			10		10
17EK15	500 FT ABOVE RUNWAY			10		10
17EK16	CROSS END OF RUNWAY			10		10
17EK17	TOUCHDOWN			10		10
17EK18	RECEIVE INSTRUCTIONS	1B 18	0	10CP3 1P170009	0	10CP1
	TO TURN TO HDG 180,	1B 25	6	10CP2 1B 17	6	10CP3
	DESCEND TO 3600 FT.	1P170011	6	10CP1 1P170012	9.5	10CP1
17EK19	RECEIVE INSTRUCTIONS	1B 18	0	10CP1 1P170013	0	10CP1
	TO REDUCE SPEED TO	1B 26	4	10CP2 1B 32	4	10CP2
	160 KIAS	1P170014	4	10CP1		10
17EK20	RECEIVE FINAL CLEAR-	1B 19	0	10CP4 1P170015	0	10CP1
	ANCE	1P170016	3	10CP1 1P170017	7	10CP1
		1B 25	10	10CP1 1B 17	10	10CP2
		1P170018	10	10CP1 1P170019	14	10CP1
		1B 07	15	10CP3 1B 08	15	10CP2
		1B 09	17.88	10CP1		10
17EK21	RECEIVE INSTRUCTIONS	1B 32	0	10CP1 1P170020	0	10CP1
	TO MAINTAIN SPEED	1P170021	3.5	10CP1 1B 14	4.5	10CP4
		1B 15	4.5	10CP4 1P160037	4.5	10CP1
17EK22	CONTACT TOWER	1B 06	0	10CP4 1B 28	2.39	10CP1
		1B 17	2.39	10CP2 1P170022	2.39	10CP1
		1P170023	6.39	10CP1 1B 19	8	10CP2
		1P170024	8	10CP1 1P170025	11.50	10CP1
180001	TUNE ATLANTA	1R 07	0	10CP3 1R 08	0	10CP4
	APPROACH CONTROL	1R 09	2.9	10CP2		10
	-126.9			10		10
180002	TUNE ATIS -123.7	1Q 07	0	10CP4 1Q 08	0	10CP4
		1Q 09	2.97	10CP2 1Q 06	4.94	10CP2
		1Q 12	6.39	10CP2 1Q 30	9	10 *3
		1P160001	9	10 *1 1P160002	12.42	10 *1
		1P160003	16.98	10 *1 1P160004	21.54	10 *1
		1P160005	26.1	10 *1 1P 06	31	10 *1
180003				10		10
180004	SET NAV-3 TO ATLANTA	5Y 01	0	10CP3 5Y 02	0	10CP2
	VOR -115.6	5Y 03	3.12	10CP2 5Y 05	4.7	10CP1
180005	CROSS WPT STAR01.			10		10
	AGCS BEGINS PROGRAM-			10		10
	MED TURN TO HDG 220			10		10
	AND DECELERATION TO			10		10
	200 KIAS			10		10
180006	TURN COMPLETED - ON			10		10
	HDG 220			10		10
180007	REACH 210 KIAS			10		10
180008	REACH 200 KIAS			10		10
180009	HANDOFF TO APPROACH	1R 16	0	10 *4 1P160016	0	10 *1
	CONTROL -127.25	1P160017	4	10 *1 1R 25	5	10CP3
		1R 37	5	10CP4 1P160018	5	10CP1
		1R 01	8	10CP3 1R 02	8	10CP2
		1R 03	10.93	10CP2 1R 05	12.51	10CP1
		1R 28	14	10CP1 1R 40	14	10CP2
		1P160019	14	10CP1 1P160020	17.5	10CP1
		1R 16	18.5	10 *2 1P160021	18.5	10 *1
		1N 07	22	10CP1		10
180010	CROSS WPT STAR02.			10		10
	AGCS BEGINS PROGRAM-			10		10
	MED TURN TO HDG 270			10		10

	AND DECELERATION TO				10			10
	170 KIAS				10			10
180011	TURN COMPLETED -ON				10			10
	HOG 270.				10			10
180012	REACH 170 KIAS. AGCS				10			10
	BEGINS PROGRAMMED				10			10
	DESCENT TO 4500 FT.				10			10
180013	SET NAV-1 TO RWY 08	5W	01	0	10CP3	5W	02	0 10CP2
	ILS -109.9	5W	03	2.37	10CP2			10
180014	SET NAV-2 TO RWY 08	5X	01	0	10CP3	5X	02	0 10CP2
	ILS -109.9	5X	03	2.95	10CP2			10
180015	SET NAV-3 TO RWY 08	5Y	01	0	10CP3	5Y	02	0 10CP2
	ILS -109.9	5Y	03	3.12	10CP2			10
180016	DESCEND THRU 10000	7G	17	0	10CP2			10
	FT				10			10
180017	LEVEL OFF AT 4500 FT				10			10
180018	SET DECISION HEIGHT	2J	20	0	10CP1	2J	21	00 10CP2
	ON EADI				10			10
180019	AGCS BEGINS PROGRAM-				10			10
	MED DECELERATION TO				10			10
	160 KIAS				10			10
180020	REACH 160 KIAS				10			10
180021	AGCS BEGINS PROGRAM-				10			10
	MED TURN TO HDG 180				10			10
180022	TURN COMPLETED - ON				10			10
	HDG 180.				10			10
180023	RECEIVE INSTRUCTIONS	1R	16	0	10 *1	1P180004		0 10 *1
	FROM ATC	1P180005		4	10 *1	1R 24		6 10CP4
		1R 15		6	10CP4	1P180006		6 10CP1
		1R 07		10	10CP3	1R 08		10 10CP4
		1R 09		12.9	10CP2			10
180024	AGCS BEGINS PROGRAM-				10			10
	MED TURN TO HDG 120				10			10
180025	TURN COMPLETED - ON				10			10
	HDG 120				10			10
180026	AGCS BEGINS PROGRAM-				10			10
	MED TURN TO HDG 090				10			10
180027	CAPTURE LOCALIZER	2J	09	0	10CP1	1P160067		2 10CP1
		1P	02	2	10 P4			10
180028	TURN COMPLETED - ON				10			10
	HDG 090 - FINAL APP				10			10
180029	AGCS BEGINS PROGRAM-				10			10
	MED DECELERATION TO				10			10
	150 KIAS				10			10
180030	REACH 150 KIAS				10			10
180031	ACQUIRE GLIDE SLOPE	3V	09	0	10 P2			10
180032	CROSS STUBBS. AGCS	1P160072		0	10CP1	1P 10		0 10 P1
	BEGINS PROGRAMMED				10			10
	DECELERATION TO 135				10			10
	KIAS				10			10
180033	SET AGCS TO AUTO	2H	10	0	10 P1	2H 11		2.13 10 P1
	LAND MODE	2H	51	3.18	10 P1	2J 13		3.96 10 P1
180034	CONTACT TOWER FOR	1R	06	0	10CP3	1R 26		2 10CP2
	FINAL LANDING CLEAR-	1R	38	2	10CP3	1P160038		2 10CP1
	ANCE.	1P160039		6	10CP1	1R 32		8 10 *4
		1P160040		8	10 *1	1P160041		12 10 *1
		1R 27		15	10CP2	1R 36		15 10CP4
		1P160037		15	10CP1			10
180035	CROSS END OF RUNWAY				10			10
180036	TOUCHDOWN AND ROLL-	8A	11	00	10CP2	2J 15		00 10CP2

	OUT, AGCS AUTO LAND	2J	40	00	10CP2 2J	41	00	10CP2
	MODE CONTROLS A/C	7F	25	00	10CP3 7F	30	00	10CP4
	UNTILL 30KTS				10			10
180037	DISENGAGE AGCS	2H	10	0	10CP1 2H	13	2.13	10CP1
		2H	01	3.18	10CP2 2H	02	4.62	10CP1
		2H	09	5.67	10CP1 4A	64	0	10CP2
		4A	64	10	10CP3			10
180038	HANDOFF TO GROUND	1R	32	0	10 *2 1P160087		0	10 *1
	CONTROL -121.9	1P160088		3.5	10 *1 1R	23	6	10CP3
		1R	36	6	10CP2 1P160089		6	10CP1
		1R	01	9	10CP3 1R	02	9	10CP2
		1R	03	11.93	10CP2 1R	05	13.51	10CP2
		1R	14	15	10CP4 1R	15	15	10CP3
		1P160090		15	10CP1 1R	34	19	10 *4
		1P160091		19	10 *1 1P160092		22.50	10 *1
		1R	27	24	10CP2 1R	36	24	10CP4
		1P160037		24	10CP1			10
180039	SET EADI FOR ILS	2J	32	0	10 P1 2J	35	2.15	10 P1
	APPROACH	2J	31	4.41	10 P1 2J	33	5.76	10 P2
		2J	18	7.11	10 P1			10
180040	SET EADI FOR STATUS	2J	32	0	10 P1 2J	35	2.15	10 P1
	APPROACH	2J	29	4.41	10 P1 2J	33	5.76	10 P2
		2J	18	7.11	10 P1			10
180041	FLIGHT INSTRUMENT	2K	14	0	10 P2 2K	46	0	10 P1
	SCAN -A1, PILOT	2K	33	0	10 P1 2J	13	0	10 P2
		2J	14	0	10 P2 2J	01	0	10 P2
		2J	19	0	10 P2 3A	10	0	10 P1
180042	FLIGHT INSTRUMENT	2K	14	0	10 P3 2K	46	0	10 P2
	SCAN -A2, PILOT	2K	33	0	10 P2 2J	13	0	10 P3
		2J	14	0	10 P3 2J	01	0	10 P3
		2J	19	0	10 P3 3A	10	0	10 P3
180043	FLIGHT INSTRUMENT	2J	15	0	10 P2 2J	13	0	10 P3
	SCAN - FINAL APP	2J	14	0	10 P3 2J	01	0	10 P3
		2J	38	0	10 P3 2J	39	0	10 P3
		2J	19	0	10 P3 3A	10	0	10 P3
		7F	33	0	10 P3 7F	34	0	10 P3
180044	FLIGHT INSTRUMENT	2K	14	0	10CP2 2K	46	0	10CP1
	SCAN -A1, COPILOT	2K	33	0	10CP1 2J	13	0	10CP2
		2J	14	0	10CP2 2J	01	0	10CP2
		2J	19	0	10CP2 3A	10	0	10CP1
180045	FLIGHT INSTRUMENT	2K	14	0	10CP3 2K	46	0	10CP2
	SCAN -A2, COPILOT	2K	33	0	10CP2 2J	13	0	10CP3
		2J	14	0	10CP3 2J	01	0	10CP3
		2J	19	0	10CP3 3A	10	0	10CP3
180046	FLIGHT INSTRUMENT	2K	14	0	10 P4 2K	46	0	10 P3
	SCAN -A1, PILOT	2K	33	0	10 P3 2J	13	0	10 P4
		2J	14	0	10 P4 2J	01	0	10 P4
		2J	19	0	10 P4 3A	14	0	10 P2
180047	FLIGHT INSTRUMENT	2K	14	0	10CP4 2K	46	0	10CP3
	SCAN -A1, COPILOT	2K	33	0	10CP3 2J	13	0	10CP4
		2J	14	0	10CP4 2J	01	0	10CP4
		2J	19	0	10CP4 3A	14	0	10CP2
180050	REACH 190 KIAS				10			10
180051	REACH 180 KIAS. AGCS				10			10
	BEGINS PROGRAMMED				10			10
	DESCENT TO 6000 FT				10			10
180052	DESCEND THRU 10000	7G	17	0	10CP2			10
	FT				10			10
180053	LEVEL OFF AT 6000 FT				10			10
180054	SET NAV-1 TO RWY 08	5W	01	0	10CP3 5W	02	0	10CP2

180055	MLS	5W	03	2.37	10CP2			10
	SET NAV-2 TO RWY 08	5X	01	0	10CP3	5X	02	0 10CP2
	MLS	5X	03	2.95	10CP2			10
180056	SET NAV-3 TO RWY 08	5Y	01	0	10CP3	5Y	02	0 10CP2
	MLS	5Y	03	3.12	10CP2			10
180057	CROSS WPT STAR03.				10			10
	AGCS BEGINS PROGRAM-				10			10
	MED TURN TO HDG 180				10			10
	AND DESCENT TO 3600				10			10
	FT				10			10
180058	TURN COMPLETED - ON				10			10
	HDG 180				10			10
180059	LEVEL OFF AT 3600FT.				10			10
	AGCS BEGINS PROGRAM-				10			10
	MED DECELERATION TO				10			10
	160 KIAS				10			10
180060	REACH 170 KIAS				10			10
180061	REACH 160 KIAS				10			10
180062	AGCS BEGINS PROGRAM-				10			10
	MED TURN TO HDG 090.				10			10
180063	TURN COMPLETED - ON				10			10
	HDG 090. CROSS WPT				10			10
	STAR04 -LAKESIDE				10			10
	AGCS BEGINS PROGRAM-				10			10
	MED DECELERATION TO				10			10
	135 KIAS.				10			10
180064	HANDOFF TO ATLANTA	1R	34	0	10 *4	1P180001		0 10 *1
	TOWER -119.5	1P180002		4	10 *1	1R 37		5 10CP4
		1R 25		5	10CP3	1P180003		5 10CP1
					10	1R 07		15 10CP3
		1R 08		15	10CP4	1R 09		17.9 10CP2
		1R 06		19.48	10CP2	1R 28		21 10CP2
		1R 38		21	10CP3	1P160038		21 10CP1
		1P160039		25	10CP1	1R 32		25 10 *4
		1P160040		25	10 *1	1P160041		30 10 *1
180065	BEGIN 6 DEG FIRST				10			10
	SEGMENT MLS APPROACH				10			10
	DESCENT.				10			10
180066	REACH 135 KIAS				10			10
180067	TRANSITION TO 3 DEG				10			10
	SECOND SEGMENT MLS				10			10
	APPROACH DESCENT				10			10
180068	TRANSITION COMPLETE.				10			10
	REACH 130 KIAS.				10			10
180069	CROSS END OF RWY 08				10			10
	-WPT STAR05				10			10
180070	FLIGHT INSTRUMENT	2K	14	0	10 P2	2K 46		0 10 P1
	SCAN -A1, PILOT	2K	33	0	10 P1	2J 05		0 10 P2
		2J	04	0	10 P2	2J 01		0 10 P2
		2J	19	0	10 P2	3A 10		0 10 P1
180071	FLIGHT INSTRUMENT	2K	14	0	10 P3			
	SCAN -A2, PILOT	2K	33	0	10 P2	2J 13		0 10 P3
		2J	04	0	10 P3	2J 01		0 10 P3
		2J	19	0	10 P3	3A 10		0 10 P3
180072	FLIGHT INSTRUMENT	2J	15	0	10 P2	2J 05		0 10 P3
	SCAN - FINAL APP	2J	04	0	10 P3	2J 01		0 10 P3
		2J	38	0	10 P3	2J 39		0 10 P3
		2J	19	0	10 P3	3A 10		0 10 P3
180073	FLIGHT INSTRUMENT	2K	14	0	10CP2	2K 46		0 10CP1
	SCAN -A1, COPILOT	2K	33	0	10CP1	2J 05		0 10CP2

	2J	04	0	10CP2	2J	01	0	10CP2
	2J	19	0	10CP2	3A	10	0	10CP1
180074 FLIGHT INSTRUMENT	2K	14	0	10CP3	2K	46	0	10CP2
SCAN -A2, COPILOT	2K	33	0	10CP2	2J	05	0	10CP3
	2J	04	0	10CP3	2J	01	0	10CP3
	2J	19	0	10CP3	3A	10	0	10CP3
180075 FLIGHT INSTRUMENT	2K	14	0	10 P4	2K	46	0	10 P3
SCAN -A1, PILOT	2K	33	0	10 P3	2J	05	0	10 P4
	2J	04	0	10 P4	2J	01	0	10 P4
	2J	19	0	10 P4	3A	14	0	10 P2
180076 FLIGHT INSTRUMENT	2K	14	0	10CP4	2K	46	0	10CP3
SCAN -A1, COPILOT	2K	33	0	10CP3	2J	05	0	10CP4
	2J	04	0	10CP4	2J	01	0	10CP4
	2J	19	0	10CP4	3A	14	0	10CP2
18EK00 PILOT INCAPACITATED				10				10
18EK01 RECEIVE INSTRUCTIONS	1R	16	0	10CP1	1P180004		0	10CP1
FROM ATC	1P180005		4	10CP1	1R	24	6	10CP4
	1R	15	6	10CP4	1P180006		6	10CP1
	1R	07	10	10CP3	1R	08	10	10CP4
	1R	09	12.9	10CP2				10
18EK02 CONTACT TOWER FOR	1R	06	0	10CP3	1R	26	2	10CP2
FINAL LANDING CLEAR-	1R	38	2	10CP3	1P160038		2	10CP1
ANCE.	1P160039		6	10CP1	1R	32	8	10CP4
	1P160040		8	10CP1	1P160041		12	10CP1
	1R	27	15	10CP2	1R	36	15	10CP4
	1P160037		15	10CP1				10
18EK03 HANDOFF TO GROUND	1R	32	0	10CP2	1P160087		0	10CP1
CONTROL -121.9	1P160038		3.5	10CP1	1R	23	6	10CP3
	1R	36	6	10CP2	1P160089		6	10CP1
	1R	01	9	10CP3	1R	02	9	10CP2
	1R	03	11.93	10CP2	1R	05	13.51	10CP2
	1R	14	15	10CP4	1R	15	15	10CP3
	1P160090		15	10CP1	1R	34	19	10CP4
	1P160091		19	10CP1	1P160092		22.50	10CP1
	1R	27	24	10CP2	1R	36	24	10CP4
	1P160037		24	10CP1				10
18EK04 HANDOFF TO ATLANTA	1R	34	0	10CP4	1P180001		0	10CP1
TOWER -119.5	1P180002		4	10CP1	1R	37	5	10CP4
	1R	25	5	10CP3	1P180003		5	10CP1
				10	1R	07	15	10CP3
	1R	08	15	10CP4	1R	09	17.9	10CP2
	1R	06	19.48	10CP2	1R	28	21	10CP2
	1R	38	21	10CP3	1P160038		21	10CP1
	1P160039		25	10CP1	1R	32	25	10CP4
	1P160040		25	10CP1	1P160041		30	10CP1
18EK05 FLIGHT INSTRUMENT	2J	15	0	10CP2	2J	05	0	10CP3
SCAN - FINAL APP	2J	04	0	10CP3	2J	01	0	10CP3
	2J	38	0	10CP3	2J	39	0	10CP3
	2J	19	0	10CP3	3A	10	0	10CP3
	7F	33	0	10CP3	7F	34	0	10CP3
200001 SHUTDOWN PROCEDURE-1	4B	08	0	10 P1	4D	27	2.5	10 P1
	4D	29	5	10 P3	7L	01	5.25	10 P1
	7L	02	7.34	10 P1	7B	25	9.43	10 P1
	7M	08	10.06	10 P3	7M	10	13.30	10 P2
	7F	31	15.81	10 P1	7F	32	17.83	10 P2
	7F	33	17.83	10 P2	7F	34	18.27	10 P2
	7G	06	18.71	10 P1	7C	25	20.40	10 P1
	7C	27	21.87	10 P1	7C	31	23.32	10 P1
	7C	35	25.29	10 P1	7C	39	26.75	10 P1
	7C	43	28.20	10 P2				10

200002 SHUTDOWN PROCEDURE-2	7B	71	0	10 P2	7G	34	1.0	10 P1
	7K	08	2.9	10 P1	7K	12	7.12	10 P1
	7J	25	8.26	10 P3	7J	27	9.68	10 P1
	7J	29	12.43	10 P1	7J	31	13.56	10 P1
	7J	33	14.69	10 P1	7J	35	15.82	10 P1
	7J	03	16.96	10 P3	7J	09	18.75	10 P4
	7J	11	20.25	10 P4				10
200003 SHUTDOWN PROCEDURE-3	7A	06	0	10 P3	7A	08	1.46	10 P3
	7A	11	2.92	10 P1	7A	13	3.47	10 P1
	7D	03	4.02	10 P2	7D	32	6.72	10 P3
	7D	20	8.25	10 P2	7D	21	10.25	10 P1
	7D	15	11.25	10 P2	7D	17	12.78	10 P2
	7D	27	14.31	10 P2	7G	26	15.84	10 P1
	4D	41	18.28	10 P2	1F	07	20.90	10 P1
	1F	06	23.34	10 P3	1H	01	25.33	10 P1
	1F	09	27.70	10 P3	1P200040		29.20	10 P1
	1B	29	32.20	10 P4	1F	11	33.50	10 P3
	1P200041		33.50	10 P1	1F	09	38	10 *1
	1P200042		38	10 *1	4D	51	39	10 P1
	7Q	01	41	10 P1	7H	14	43.66	10 P1
	7H	11	45.06	10 P1	1P200005		47	10 P1
	1P	10	47	10CP3				10
200005 SHUTDOWN CHECKLIST-1	8B	02	0	10CP1	8B	03	4	10CP1
	1P200006		6	10CP1	1P	10	6	10 P2
	7C	71	6.7	10 P1	1P200007		8.3	10 P1
	1P	07	8.3	10CP4	8B	03	9.1	10CP1
	1P200008		11.1	10CP1	1P	11	11.1	10 P3
	7B	94	12	10 P1	1P200009		13.44	10 P1
	1P	06	13.44	10CP4	8B	03	14	10CP1
	1P200010		16	10CP1	1P	10	16	10CP1
	1P200011		17	10 P1	1P	07	17	10CP2
200006 SHUTDOWN CHECKLIST-2	8B	03	0	10CP1	1P200012		2	10CP1
	1P	12	2	10 P4	7G	49	3.1	10 P1
	1P200009		4.38	10 P1	1P	06	4.38	10CP4
	8B	03	5	10CP1	1P200013		7	10CP1
	1P	10	7	10 P3	7G	50	8.2	10 P1
	1P200009		9.5	10 P1	1P	06	9.5	10CP4
	8B	03	10	10CP1	1P200014		12	10CP1
	1P	10	12	10 P1	7K	12	13	10 P1
	1P200009		14.2	10 P1	1P	06	14.2	10CP4
200007 SHUTDOWN CHECKLIST-3	8B	03	0	10CP1	1P200015		2	10CP1
	1P	10	2	10 P1	7J	47	3	10 P1
	7J	48	4.47	10 P1	1P200009		5.22	10 P1
	1P	06	5.22	10CP4	8B	03	5.72	10CP1
	1P200016		7.72	10CP1	1P	10	7.72	10 P3
	7J	49	8.92	10 P1	7J	50	10.34	10 P1
	1P200009		11.10	10 P1	1P	06	11.1	10CP4
	8B	03	11.6	10CP1	1P200017		13.6	10CP1
	1P	02	13.6	10 P1	7A	11	15.1	10 P1
	7A	13	15.65	10 P1	1P200009		16.2	10 P1
	1P	06	16.2	10CP4	8B	03	17	10CP1
	1P200018		19	10CP1	1P	14	19	10 P4
	7D	67	21.1	10 P1	7D	68	22.48	10 P1
	7D	64	23.22	10 P1	7D	65	24.53	10 P1
	7D	66	25.3	10 P1	7E	36	26.07	10 P1
	1P200019		26.6	10 P1	1P	16	26.6	10CP3
200008 SHUTDOWN CHECKLIST-4	8B	03	0	10CP1	1P200020		2	10CP1
	1R	10	2	10 P3	1P200009		3.2	10 P1
	1P	06	3.2	10CP3	8B	03	3.7	10CP1
	1P200021		5.7	10CP1	1P	10	5.7	10 P3

	7M	12	6.9	10 P2	7M	13	8.4	10 P2
	1P200009		9.2	10 P1	1P	06	9.2	10CP4
	8B	03	9.7	10CP1	1P200022		11.7	10CP1
	1P	10	11.7	10 P1	4D	49	12.7	10 P1
	1P200009		13.8	10 P1	1P	06	13.8	10CP4
	8B	03	14.3	10CP1	1P200023		16.3	10CP1
	1P	12	16.3	10 P2	6A	17	17.7	10 P1
	1N	18	19.87	10 P1	1P200009		20.93	10 P1
	1P	06	20.93	10CP4			10	
200009 SHUTDOWN CHECKLIST-5	8B	03	0	10CP1	1P200024		2	10CP1
	1P	10	2	10 P1	4F	12	3	10 P1
	1P200030		5	10 P1	1P	08	5	10CP3
	8B	03	6.2	10CP1	1P200025		8.2	10CP1
	1P	11	8.2	10 P2	1P200029		9	10 P1
	1P	08	9	10CP4	8B	03	9.6	10CP1
	1P200026		11.6	10CP1	1P	10	11.6	10 P1
	1P200031		12.6	10 P1	1P	06	12.6	10CP3
	8B	03	13.6	10CP1	1P200027		15.6	10CP1
	1R	10	15.6	10 P1	1P200032		16.6	10 P1
	1P	08	16.6	10CP1	8B	03	17.5	10CP1
	1P200033		19.5	10CP1	1P	02	19.5	10 P1
	7H	01	21	10 P1	7H	02	23.81	10 P1
	1P200034		26	10 P1	1P	06	26	10CP1
	8B	03	28.5	10CP1	1P200035		30.5	10CP1
	1P	12	30.5	10 P1			10	
200010 SECURING PROCEDURE	7D	06	0	10 P3	7L	11	2.65	10 P4
	8B200001		5	10 P1	7B	55	35	10 P2
	1P200039		38.3	10 P1	1P	10	38.3	10CP3
200011 SHUTDOWN CHECKLIST-6	8B	03	0	10CP1	1P200036		2	10CP1
	1P	10	2	10 P1	1P200009		3	10 P1
	1P	06	3	10CP4	8B	03	3.5	10CP1
	1P200037		5.5	10CP1	1P	10	5.5	10 P1
	1P200009		6.5	10 P1	1P	06	6.5	10CP4
	8B	03	7	10CP1	1P200038		9	10CP1
	1P	16	9	10 P4			10	
200012 SCENARIO COMPLETED			10				10	
20EK01 SHUTDOWN PROCEDURE - 1A	4B	08	0	10CP2	4D	27	2.5	10CP3
	4D	29	6	10CP4	7L	01	6.54	10CP1
	7L	02	8.63	10CP1	7B	25	10.72	10CP1
	7M	08	11.35	10CP4	7M	10	14.59	10CP3
	7F	31	17.1	10CP1	7F	32	19.12	10CP2
	7F	33	19.56	10CP2	7F	34	20	10CP2
	7G	06	20.44	10CP2	7C	25	22.15	10CP3
	7C	27	24.5	10CP3	7C	31	25.95	10CP4
	7C	35	27.54	10CP3	7C	39	28.93	10CP2
	7C	43	30.38	10CP2			10	
20EK02 SHUTDOWN PROCEDURE- 2A	7B	71	0	10CP3	7G	34	1.8	10CP3
	7K	08	3.7	10CP1	7K	12	7.92	10CP1
	7J	25	9.06	10CP2	7J	27	10.48	10CP2
	7J	29	11.90	10CP1	7J	31	13.03	10CP1
	7J	33	14.16	10CP1	7J	35	15.29	10CP1
	7J	37	16.43	10CP1	7J	39	17.57	10CP1
	7J	03	18.71	10CP1	7J	09	20.50	10CP1
	7J	11	22	10CP1			10	
20EK03 SHUTDOWN PROCEDURE - 3A	7D	03	0	10CP1	7D	32	2.7	10CP1
	7D	20	4.47	10CP1	7D	21	7.07	10CP1
	7D	15	8.07	10CP1	7D	17	10.47	10CP1
	7D	27	12.87	10CP1	7G	26	15.47	10CP2
	1F	07	17.91	10CP3	1F	06	20.25	10CP1
	1H	01	23.11	10CP2	1F	09	27	10CP3

	1P200040	27	10CP1	1B	29	29	10CP4
	1F 11	29	10CP3	1P200041	29	10CP1	
	1F 09	32	10CP1	1P200042	32	10CP1	
	4D 51	33	10CP2	7Q	01	36	10CP3
	7H 14	39	10CP1	7H	11	42	10CP1
20EK05 PERFORM SHUTDOWN CHECKLIST - 1A	8B 02	0	10CP1	8B	03	4	10CP1
	7C 71	6	10CP1	8B	03	7.59	10CP1
	7B 94	9.59	10CP1	8B	03	11	10CP1
	8B 03	13	10CP1	7G	49	15	10CP1
	8B 03	16.28	10CP1	7G	50	18.28	10CP1
	8B 03	19.56	10CP1	7K	12	21.56	10CP1
	8B 03	22.7	10CP1	7J	47	24.7	10CP1
	7J 48	26.17	10CP1	8B	03	26.92	10CP1
	7J 49	28.92	10CP1	7J	50	30.35	10CP1
20EK06 PERFORM SHUTDOWN CHECKLIST - 2A	8B 03	0	10CP1	7A	11	2	10CP1
	7A 13	2.55	10CP1	8B	03	3.1	10CP1
	7D 67	5.1	10CP1	7D	68	6.45	10CP1
	7D 64	7.22	10CP1	7D	65	8.53	10CP1
	7D 66	9.3	10CP1	7D	36	10.07	10CP1
	8B 03	10.61	10CP1	8B	03	12.61	10CP1
	7M 12	14.61	10CP2	7M	13	16.11	10CP2
	8B 03	16.89	10CP1	4D	49	18.89	10CP1
20EK07 PERFORM SHUTDOWN CHECKLIST - 3A	8B 03	0	10CP1	6A	17	2	10CP1
	1N 18	4.17	10CP1	8B	03	5.67	10CP1
	4F 12	7.67	10CP1	8B	03	9.67	10CP1
	8B 03	11.67	10CP1	8B	03	13.67	10CP1
	7H 01	15.67	10CP1	7H	02	18.48	10CP1
	8B 03	20.51	10CP1			10	
20EK08 SECURING PROCEDURE-A	7D 06	0	10CP2	7L	11	2.49	10CP1
	8B200001	6.08	10CP1	7B	55	37	10CP3
20EK09 PERFORM SHUTDOWN CHECKLIST - 4A	8B 03	0	10CP1	8B	03	2	10CP1
20EK10 SCENARIO COMPLETED	8B 03	4	10CP1			10	
230001 TURN OFF OF RWY 08 ONTO TAXIWAY D AND TAXI TO RAMP	4M 05	0	10 P1	8A	08	0	10 P2
	4B 03	10	10 P1	4M	04	15	10 P4
	4D 28	1	10 P2	4B	08	1	10 P1
230002 AFTER LNDG PROC.	4F 01	1	10 P4	7E	16	0	10CP3
	7M 17	3	10CP1	7M	18	5.5	10CP1
	7L 13	4	10 P4	7G	16	8.5	10CP2
	6A 09	10	10CP1	1N	01	12.37	10CP1
	4F 12	14.30	10CP1	4E	06	16.30	10CP3
	7B 24	6.5	10 P1			10	
	7B 34	7.2	10 P3	7B	25	7.8	10 P1
230003 TURN OFF TAXIWAY D ONTO RAMP AND TAXI TO ARRIVAL GATE	8A 02	0	10 P2			10	
	4B 03	5	10 P4	4M	04	0	10 P1
	4D 28	2	10 P2	4B	08	2	10 P1
230004 TAXI UP TO GATE	4M 01	0	10 P4	4B	03	0	10 P4
23EK01 TURN OFF OF RWY 08 ONTO TAXIWAY D AND TAXI TO RAMP. - A	4M 03	0	10CP4	8A	07	0	10CP2
	4B 07	10	10CP1	4M	04	13	10CP4
	4D 28	1	10CP1	4B	07	1	10CP1
23EK02 AFTER LANDING PROC - A	7E 16	0	10CP3	7M	17	3	10CP1
	7M 18	5.5	10CP1	7L	22	7	10CP1
	7G 16	8.5	10CP2	6A	09	10	10CP1
	1N 01	12.37	10CP1	4F	12	14.3	10CP1
	4E 06	16.3	10CP3	7B	34	19	10CP1
	7B 25	20.75	10CP1			10	
23EK03 TURN OFF OF TAXIWAY D AND ONTO RAMP AND TAXI TO GATE - A	4D 28	0	10CP1	8A	07	0	10CP3
	4B 07	5	10CP1	4M	04	5	10CP1
		10	10	4B	08	2	10CP2
23EK04 TAXI UP TO GATE	4M 03	0	10CP4	4B	07	0	10CP1

DUMMY TASKS	DUMMY PROCEDURE	8A 8F	07 DUMMY	0 1	10CP4 10 *1		10 10
1A	01 MON VHF-1L FREQ IND	1	.76	90		5	
		2	4.03	90		5	
		3	4.09	90		5	
1A	02 SET VHF-1L FREQ - WHOLE NO.S	1	2.05	10	100	5	P
		2	2.98	10	100	5	CP
		3	2.05	10	100	5	CP
1A	03 SET VHF-1L FREQ - FRACTIONS	1	1.98	10	100	5	CP
		2	1.98	10	100	5	
1A	04 ADJ VHF-1 VOLUME	1	2.08	10	100	5	CP
		2	2.11	10	100	5	P
1A	05 SET VHF-1 COMM TFR SW TO LEFT	1	2.39	20	100	5	
		2	1.43	20	100	5	
		3	2.39	20	100	5	
		4	1.43	20	100	5	
1A	06 SET VHF-1 COMM TFR SW TO RIGHT	1	2.39	100	100	5	
		2	1.43	100	100	5	
		3	2.30	100	100	5	
		4	1.43	100	100	5	
1A	07 MON VHF-1R FREQ IND	1	.76	90		5	
		2	4.86	90		5	
		3	4.96	90		5	
		4	3.99	90		5	
1A	08 SET VHF-1R FREQ. WHOLE NO.S	1	2.98	10	100	5	
		2	2.01	10	100	5	
		3	2.98	10	100	5	
		4	2.01	10	100	5	
1A	09 SET VHF-1R FREQ - FRACTIONS	1	1.98	10	100	5	CP
		2	1.98	10	100	5	
		3	2.11	10	100	5	P
1A	10 ACT PUSH-TO-TALK SW	1	3.5		100	5	
		2	5.0		100	5	
		3	1.7		100	5	
		4	2		100	5	
1A	11 COMM VIA VHF-1	1	5.				
		2	12.				
		3	1.7				
		4	7.				
1A	12 COMM VIA VHF-1	1	3.5				
		2	3.0				
		3	6				
1A	14 MON VHF-1 COMM AUDIO	1	17.				
		2	6.				
		3	7.				
		4	3.				
1A	15 MON VHF-1 COMM AUDIO	1	5.				
		2	4.				
		3	24				
		4	2.5				
1A	17 SET COMM 2 VHF-1 COMM RECVR SW TO ON	1	2.39	100	100		CP
		2	1.52	100	100	5	P
		3	2.09	100	100	5	P
		4	1.60	100	100	5	CP
1A	18 SET COMM 2 VHF-1 COMM RCVR SW TO OFF	1	2.39	100	100	5	
		2	1.52	100	100	5	
		3	2.09	100	100	5	
		4	1.60	100	100	5	
1A	19 SET COMM 2 MIC SEL	1	2.86	100	100	5	CP

			SW TO VHF-1	2	1.99	100	100	5		
				3	2.92	100	100	5		P
				4	1.99	100	100	5		P
1A	20	ACT COMM 2 PTT SW		1	1.42	20	100	5		
				2	1.50	20	100	5		
				3	1.42	20	100	5		
				4	2.35	20	100	5		
1A	21	SET COMM BOOM/OXY		1	1.50	100	100	5		
		SW TO BOOM						5		
1A	22	SET COMM 2 BOOM/OXY		1	1.50	100	100	5		
		SW TO OXY		2	2.35	100	100	5		
1A	23	ADJ COMM 2 MIC VOL		1	2.04	10	100	5		1A
1A	24	ACT COMM 2 PUSH-TO-TALK SW		1	6.42	10	100	5		
				2	13.42	10	100	5		
				3	3.12	10	100	5		
1A	25	ACTUATE COMM 2 PUSH-TO-TALK SW		1	7.	10	100	5		
				2	1.7	10	100	5		
				3	2.35	10	100	5		
				4	3.0	10	100	5		
1A	26	ACT B/O PTT SW		1	1.0	10	100	5		
				2	1.5	10	100	5		
				3	2.0	10	100	5		
				4	2.5	10	100	5		
1A	27	ACT B/O PTT SW		1	3.0	10	100	5		
				2	3.5	10	100	5		
				3	4.0	10	100	5		
				4	4.5	10	100	5		
1A	28	ACT B/O PTT SW		1	1.0	10	100	5		
				2	1.5	10	100	5		
				3	2.0	10	100	5		
				4	2.5	10	100	5		
1A	29	ACT B/O PTT SW		1	3.0	10	100	5		
				2	3.5	10	100	5		
				3	4.0	10	100	5		
				4	4.5	10	100	5		
1B	01	MON VHF-2L FREQ IND		1	.76	90		5		
				2	4.88	90		5		
				3	5.08	90		5		
1B	02	SET VHF-2L FREQ-WHOLE NO.S		1	2.20	10	100	5		
				2	2.90	10	100	5		
				3	2.40	10	100	5		
				4	3.10	10	100	5		
1B	03	SET VHF-2L FREQ - FRACTIONS		1	1.98	10	100	5		
				2	1.98	10	100	5		
1B	04	ADJ VHF-2 VOLUME		1	2.00	10	100	5		
				2	2.09	10	100	5		
				3	2.09	10	100	5		
				4	2.19	10	100	5		
1B	05	SET VHF-2 COMM TFR SW TO LEFT		1	1.45	10	100	5		
				2	2.39	10	100	5		
				3	1.49	10	100	5		
				4	2.39	10	100	5		
1B	06	SET VHF-2 COMM TFR SW TO RIGHT		1	1.45	10	100	5		
				2	2.39	10	100	5		
				3	1.49	10	100	5		
				4	2.39	10	100	5		
1B	07	MON VHF-2R FREQ IND		1	.76	100		5		
				2	4.01	90		5		
				3	4.86	90		5		
1B	08	SET VHF-2R FREQ -		1	2.03	10	100	5		CP

WHOLE NO.S						
		2	2.88	10	100	5
		3	2.03	10	100	5
		4	2.98	10	100	5
1B	09 SET VHF-2R FREQ -	1	1.98	10	100	5
	FRACTIONS	2	1.98	10	100	5
1B	10 SET COMM 2 MIC-SEL	1	2.86	100	100	5
	SW TO VHF-2	2	1.99	100	100	5
		3	2.92	100	100	5
1B	11 SET COMM 2 VHF-2	1	2.09	100	100	5
	COMM RECVR SW TO ON	2	1.52	100	100	5
		3	2.39	100	100	5
		4	1.44	100	100	5
1B	12 SET COMM VHF-2 COMM	1	2.39	100	100	5
	RCVR SW TO OFF	2	1.44	100	100	5
		3	2.09	100	100	5
		4	1.52	100	100	5
1B	13 ACT COMM 2 PTT SW	1	1.42	10	100	5
		2	2.30	10	100	5
		3	1.42	10	100	5
		4	3.50	10	100	5
1B	14 ACT PUSH-TO-TALK SW	1	4.8		100	5
	ON HANDGRIP	2	2.5		100	5
		3	1.5		100	5
		4	1.7		100	5
1B	15 COMM VIA VHF-2	1	4.8			
		2	2.5			
		3	1.5			
		4	1.7			
1B	16 COMM VIA VHF-2	1	3.5			
		2	2.3			
		3	4.5			
		4	2.8			
1B	17 COMM VIA VHF-2	1	7.0			
		2	5.0			
		3	4.0			
		4	6.0			
1B	18 MON VHF-2 COMM AUDIO	1	30.			
		2	2.5			
		3	6.0			
		4	3.5			
1B	19 MON VHF-2 COMM AUDIO	1	3.2			
		2	7.0			
		3	6.2			
		4	10.			
1B	20 MON VHF-2 COMM AUDIO	1	5.			
		2	5.5			
		3	1.7			
		4	3			
1B	21 SET COMM 2 BOOM/OXY	1	1.50	100	100	5
	SW TO BOOM	2	2.42	100	100	5
		3	1.47	100	100	5
		4	1.47	100	100	5
1B	22 SET COMM 2 BOOM/OXY	1	1.40	100		5
	SW TO CXY	2	1.47	100		5
		3	1.50	100		5
		4	2.42	100		5
1B	23 ADJ COMM 2 MIC VOL	1	1.97	10	100	5
		2	2.04	10	100	5
1B	24 ACT PUSH-TO-TALK SW	1	4.5		100	5
	ON CONTROL HANDGRIP	2	2.8		100	5

CP

P
P
CP
CP

CP

		3	6.2		100			5
		4	3.5		100			5
1B	25 ACT PUSH-TO-TALK SW	1	5		100			5
	ON CONTROL HANDGRIP	2	4		100			5
		3	6		100			5
		4	4.2		100			5
1B	26 ACT PUSH-TO-TALK SW	1	7		100			5
	ON CONTROL HANDGRIP	2	3		100			5
		3	10		100			5
		4	7.5		100			5
1B	28 ACTUATE COMM 2 PUSH-	1	5.0		100			5
	TO-TALK SW	2	6.0		100			5
		3	4		100			5
		4	4.25		100			5
1B	29 ACTUATE COMM 2 PUSH-	1	1.7		100			5
	TO-TALK SW	2	3.5		100			5
		3	1.5		100			5
		4	3		100			5
1B	32 COMM VIA VHF-2	1	4.2		100			5
		2	3					
		3	10					
		4	7.5					
1B	33							
1B	34							
1B	35							
1B	36 MONITOR VHF-2 COMM	1	11					
	AUDIO	2	2					
		3	12					
		4	6.5					
1B	37 MONITOR VHF-2 COMM	1	16					
		2	4					
		3	15					
		4	3.7					
1B	38 ACC CNTL WHEEL	1	8.3		100			5
	COMM SWITCH							5
1B	39 COMM VIA VHF-2	1	8.3					5
	AUDIO	2	4					5
		3	15					5
		4	3.7					5
1F	01 MON COCKPIT CALL	1	1.00					5
	CHIME							5
1F	02 MON COCKPIT CALL	1	.71		100			5
	ANNUN LT ON							5
1F	03 ACT ATTENDANT CALL	1	2.35		100	100		5
	SW							5
1F	04 SET SERVICE INTPHN	1	2.92		100	100		5
	SW TO ON							5
1F	05 SET SERVICE INTPHN	1	2.92		100	100		5
	SW TO OFF							5
1F	06 SET COMM 2 MIC SEL	1	2.86		100	100		5
	SW TO INT	2	2.92		100	100		5
		3	1.99		100	100		5
1F	07 SET COMM 2 INT COMM	1	2.44		100	100		5
	RECV SW TO ON	2	1.55		100	100		5
		3	2.34		100	100		5
1F	08 SET COMM 2 INT COMM	1	2.44		100	100		5
	RECV SW TO OFF	2	1.55		100	100		5
		3	2.34		100	100		5
1F	09 MON INT COMM AUDIO	1	.8					5

CP
P
P

		2	.9					5	
		3	1.5					5	
1F	10 MON INT COMM AUDIO							5	
1F	11 INTPHN COMM	1	1.4					5	
		2	1.3					5	
		3	1.3					5	
1G	01 SET COMM 1 PA COMM	1	1.41	100		100		5	P
	RECV SW TO ON	2	1.45	100		100		5	
1G	02 SET COMM 2 PA COMM	1	1.41	100	100			5	
	RECV SW TO OFF	2	1.97	100		100		5	
1G	03 SET COMM 2 MIC SEL	1	2.32	100		100		5	
	SW TO PA	2	2.92	100		100		5	P
		3	1.99	100		100		5	P
1G	04 ACTUATE HANDMIKE SW							5	
	FOR PUBLIC ADDRESS							5	
	ANNOUNCEMENT							5	
1G	06 PICK UP PA HANDMIKE	1	3.08	100	100			5	CP
		2	2.58	100		100		5	P
		3	5.06	100		100		5	P
1G	07 RETURN PA HANDMIKE	1	3.08	100	100			5	
	TO CRADLE	2	2.58	100		100		5	
		3	5.06	100		100		5	
1G	08 SET COMM 2 PA COMM	1	1.41	100	100			5	CP
	RECV SW TO ON							5	
1G	09 SET COMM 2 PA COMM	1	1.41	100	100			5	
	RECV SW TO OFF							5	
1G	10 SET COMM 2 MIC SEL	1	2.86	100	100			5	CP
	SW TO PA							5	
1G	11 PRESS COMM 2 PRESS-	1	1.42	100	100			5	CP
	TO-TALK SW FOR PA	2	1.42	100		100		5	P56
1G	12 SET COMM RCVR SW ON	1	1.41	50		100		5	
1G	13 SET COMM RCVR SW ON	1	2.5	50	100			5	
		2	3.0	50	100			5	
		3	2.5	50		100		5	
		4	3.0	50		100		5	
1H	01 ACTUATE GRD CALL SW	1	2.37	20		100		5	P
		2	2.37	20	100			5	
1J	01 ACTUATE VOICE REC	1	1.49	100	100			5	CP
	TEST SW							5	
1J	02 MON VOICE REC	1	2.03	100				5	CP
1M	01 MON VHF 1 SELCAL LT	1	.53	100				5	P
	ON	2	1.05	100				5	CP
1M	02 MON VHF 2 SELCAL LT	1	1.71	100				5	CP
	ON	2	1.05	100				5	CP
1M	03 MONITOR SELCAL CHIME	1	1.00					5	100
1M	04 COMM VIA SELCAL							5	
1M	05 PUSH VHF 1 SELCAL	1	2.22	100		100		5	P
	TEST/RESET SW	2	2.30	100	100			5	CP
1M	06 PUSH VHF 2 SELCAL	1	2.22	100	100			5	CP
	TEST/RESET SW							5	
1N	01 SET ATC FUNCTION SEL	1	1.93	100	100			5	CP
	SW TO OFF							5	
1N	02 SET ATC FUNCTION SEL	1	1.93	100	100			5	
	SW TO STDBY	2	1.93	100		100		5	1N
1N	03 SET ATC FUNCTION SEL	1	1.93	100	100			5	
	SW TO ON							5	
1N	04 SET ATC FUNCTION SEL	1	1.93	100	100			5	
	SW TO LO SENS							5	
1N	05 SET ATC IDENT CODE	1	2.80	10	100			5	C
		2	2.04	10	100			5	CP3

1N	06 MON IDENT CODE INDIC	1	.77	100	5		CP
		2	2.04	90	5		
		3	2.80	90	5		
1N	07 PRESS ATC IDENT SW	1	2.14	50 100	5		CP
		2	1.41	50 100	5		CP
1N	08 SET ATC MODE SEL SW	1	2.61	100 100	5		CP
	TO A				5		
1N	09 SET ATC MODE SEL SW	1	2.61	100 100	5		
	TO B				5		
1N	10 SET ATC MODE SEL SW	1	2.61	100 100	5		
	TO C				5		
1N	11 SET ATC MODE SEL SW	1	2.61	100 100	5		
	TO D				5		
1N	12 SET ATC TRANSPONDER	1	1.93	100 100	5		CP
	SEL TO NO.1				5		
1N	13 SET ATC TRANSPONDER	1	1.93	100 100	5		
	SEL TO NO.2				5		
1N	14 SET ATC ALT REPTG	1	1.57	100 100	5		CP
	SOURCE SW TO NO.1				5		
1N	15 SET ATC ALT REPTG	1	1.57	100 100	5		
	SOURCE SW TO NO.2				5		
1N	16 SET ATC TEST SW TO	1	1.50	80 100	5		CP
	TEST				5		
1N	17 SET ATC TEST SW TO	1	1.50	80 100	5		
	MONITOR				5		
1N	18 MON ATC TEST LT ON	1	1.50	20	5		
1P	01 MONITOR INSTRUCTIONS	1			5		
		2			5		
		3			5		
		4			5		
1P	02 MON VERBAL REPORT	1	1.5		5	100	
		2	2.0		5	100	
		3	3.0		5	100	
		4	1.3		5	100	
1P	03 ACKNOWLEDGE	1	.50		5		50
		2			5		
		3			5		
		4			5		
1P	04 MON VERBAL REPORT	1	2.8		5	100	
		2	2.2		5	100	
		3	1.8		5	100	
		4			5		
1P	05 MON VERBAL REPORT	1	5.0		5	100	
		2	6.2		5	100	
		3	4.0		5	100	
		4			5		
1P	06 MON VERBAL REPORT	1	2.50		5	100	
		2	6.0		5	100	
		3	1.0		5	100	
		4	.5		5	100	
1P	07 MON VERBAL REPORT	1	4.5		5	100	
		2	.7		5	100	
		3	2.3		5	100	
		4	.8		5	100	
1P	08 MON VERBAL REPORT	1	.9		5	100	
		2	1.6		5	100	
		3	1.2		5	100	
		4	.6		5	100	
1P	09 MON VERBAL REPORT	1	1.3		5	100	
		2	1.4		5	100	

		3	10	5	100	
		4	1.9	5	100	
1P	10 MON VERBAL REPORT	1	1.0	5	100	
		2	.7	5	100	
		3	1.2	5	100	
		4	.6	5	100	
1P	11 MON VERBAL REPORT	1	.5	5	100	
		2	.8	5	100	
		3	.9	5	100	
		4	1.7	5	100	
1P	12 MON VERBAL REPORT	1	2.5	5	100	
		2	1.4	5	100	
		3	2.2	5	100	
		4	1.1	5	100	
1P	13 MON VERBAL REPORT	1	2.3	5	100	
		2	2.4	5	100	
		3	3.5	5	100	
		4	1.8	5	100	
1P	14 MON VERBAL REPORT	1	1.9	5	100	
		2	.4	5	100	
		3	1.6	5	100	
		4	2.1	5	100	
1P	15 MON VERBAL REPORT	1	2.7	5	100	
		2	3.7	5	100	
		3	4.2	5	100	
		4	3.2	5	100	
1P	16 MON VERBAL REPORT	1	.4	5	100	
		2	.3	5	100	
		3	.3	5	100	
		4	1.5	5	100	
1P	17 MON VERBAL REPORT	1	3.5	5	100	
		2	3.7	5	100	
		3	4	5	100	
		4	2	5	100	
1P	18 MON VERBAL REPORT	1	1.1	5	100	
1P	19 MON VERBAL REPORT	1	.4	5	100	1P
		2	1.5	5	100	
		3	4.5	5	100	
1P	20 MON VERBAL REPORT	1	2.00	5	100	1P
1PBYRZ01	MON COM- UNITED 24, CONTACT DENVER APRCH ON 128.95	1	5.0	20	100	
1PBYRZ02	RADIO - DENVER APRCH UNITED 24	1	1.5	20	100	
1PBYRZ03	MON COM- UNITED 24, DENVER, PROCEED TO BYERS DESCEND AND MAINTAIN 13000	1	5.0	20	100	
1PBYRZ04	RADIO - ROGER, UNITED 24 CLEARED TO BYERS AND 13000	1	3.5	20	100	
1PBYRZ05	MON CALL- UNITED 24 DESCEND AND MAINTAIN 12000.	1	3.5	20	100	
1PBYRZ06	RADIO- ROGER UNITED 24 OUT OF 13000 FOR 12000.	1	3.5	20	100	
1PBYRZ07	MON COMM- UNITED 24 DESCEND AND MAINTAIN 11000.	1	3.5	20	100	

1PBYRZ08	RADIO- ROGER UNITED 24 CLEARED TO 11000	1	2.0	20	100
1PBYRZ09	MON COMM- UNITED 24 REDUCE SPEED TO 250 KNOTS.	1	3.0	20	100
1PBYRZ10	RADIO- UNITED 24, ROGER, SLOW TO 250	1	2.5	20	100
1PBYRZ11	MON COMM- UNITED 24, REDUCE SPEED TO 200 KNOTS.	1	3.0	20	100
1PBYRZ12	RADIO- UNITED 24, ROGER, SLOW TO 200	1	2.5	20	100
1PBYRZ13	MON COMM- UNITED 24, CONTACT DENVER LOCAL CONTROL ON 118.3	1	5.0	20	100
1PBYRZ14	RADIO- UNITED 24, ROGER, LOCAL CONTROL ON 118.3	1	4.0	20	100
1PBYRZ15	RADIO- DENVER LOCAL UNITED 24	1	1.5	20	100
1PBYRZ16	MSG- UNITED 24 TURN RIGHT HEADING 350 REDUCE TO APPROACH SPEED (150KTS)	1	6.0	20	100
1PBYRZ17	RADIO- UNITED 24, ROGER, RIGHT TO 350 SLOW TO APPROACH SPD	1	5.0	20	100
1PBYRZ18	MSG- UNITED 24, CLEARED DIRECT TO APRCH GATE, CONTACT TOWER AT OM 120.0	1	6.0	20	100
1PBYRZ19	RADIO- ROGER UNITED 24 CLEARED DIRECT TO THE GATE, TOWER AT OM 120.0	1	6.0	20	100
1PLNDCL1	RADIO COMM - U24, ROGER!	1	1.7	10	100
1PLNDCL2	RADIO COMM-DENVER TOWER, THIS IS U 24 OVER THE GATE INBOUND FOR LNDNG	1	4.0	10	100
1PLNDCL3	ZERO EIGHT, OVER!	1	1.0	10	100
1PLNDCL4	MON RADIO COMM - UNITED 24, DENVER TOWER, ROGER. CLEAR TO LAND RUNWAY TWO.	1	4.0	10	100
1PLNDCL5	SIX . WIND TWO ONE ZERO DEGREES AT ZERO MINER.!	1	3.0	10	100
1PLNDCL6	CALL OUT-ALTIMETER BARO SETTING IS TWO MINER POINT EIGHT FOUR!	1	3.5	10	100
1PLMNT01	MSG- UNITED 76, CONTACT DENVER APRCH CNTRL ON 128.05	1	4.5	20	100
1PLMNT02	COM- UNITED 76, ROGER - DENVER APRCH 12805	1	3.0	20	100
1PLMNT03	COM- DENVER APRCH UNITED 76	1	3.0	20	100

1PLMNT04	MSG- UNITED76, DENVER 1	5.0	20	100
	, PROCEED TO LNGMNT DESCEND MAINTAIN 16000			
1PLMNT05	COM- UNITED76 ROGER 1	3.0	20	100
	OUT OF 17-5 FOR 1600 0			
1PLMNT06	MSG- UNITED76 DSCND 1	3.0	20	100
	MAINTAIN 15000			
1PLMNT07	COM- UNITED76 ROGER 1	3.0	20	100
	DESCEND TO 15000			
1PLMNT08	MSG- UNITED76 HOLD 1	5.0	20	100
	AT LONGMOUNT, EXPECT FURTHER CLEARANCE AT 16:40			
1PLMNT09	COM- UNITED76 ROGER 1	4.5	20	100
	HOLD LONGMONT FURTHER CLEARANCE 16:40			
1PLMNT10	MSG- UNITED76 DSCND 1	3.0	20	100
	MAINTAIN 14000			
1PLMNT11	COM- UNITED76 ROGER 1	3.0	20	100
	CLEARED TO 14000			
1PLMNT12	MSG- UNITED76 REDUCE 1	3.0	20	100
	SPEED TO 250KTS			
1PLMNT13	MSG- UNITED76 HOLD 1	5.5	20	100
	AT LONGMONT EXPECT FURTHER CLEARANCE AT 16:40:42			
1PLMNT14	COM- UNITED76 ROGER 1	5.5	20	100
	HOLD LONGMONT EXPECT FURTHER CLEARANCE AT 16:40:42			
1PLMNT15	MSG- UNITED76 INCRSE 1	4.5	20	100
	SPEED TO 220KTS DSCND MAINTAIN 11000			
1PLMNT16	COM- UNITED76 ROGER 1	4.0	20	100
	DESCEND MAINTAIN 11000 SPEED 220			
1PLMNT17	MSG- UNITED76 REDUCE 1	3.0	20	100
	SPEED TO 1 KTS			
1PLMNT18	COM- UNITED76 ROGER 1	2.5	20	100
	SLOW TO 170			
1PLMNT19	MSG- UNITED76 CONTACT 1	3.5	20	100
	DENVER LOCAL CONTROL ON 118.3			
1PLMNT20	COM- UNITED76 ROGER 1	3.5	20	100
	CONTACT DENVER LOCAL 118.3			
1PLMNT21	MSG- UNITED76 FLY 1	3.0	20	100
	DIRECT TO ALTURA			
1PLMNT22	COM- UNITED76 ROGER 1	3.0	20	100
	DIRECT TO ALTURA			
1PLMNT23	MSG- UNITED76 FLY 1	3.5	20	100
	DIRECT TO APPROACH GATE			
1PLMNT24	COM- UNITED76 ROGER 1	3.0	20	100
	DIRECT TO GATE			
1PLMNT25	MSG- UNITED76 REDUCE 1	5.5	20	100
	TO APPROACH SPEED CONTACT TWR AT O.M.			

	ON120.0				
1PLMNT26	COM- UNITED76 ROGER SLOW TO APPROACH SPD CONTACT TOWER 120.0 AT 0.M.	1	5.5	20	100
1P00IV01	CALL-OUT TRAFFIC SITUATION NORMAL	1	2	10	100
1P00IV02	CALL-OUT TRAFFIC CONFLICT X 0'CLOCK	1	2	10	100
1PXXXX01	CALLOUT - GET THE CHECKLIST	1	1.5	10	100
1PXXXX02	RPT- CHKLST COMP	1	1.0	10	100
1PXXXX03	RPT- ON	1	.5	10	100
1PXXXX04	RPT- OFF	1	.5	10	100
1PXXXX05	RPT- SET	1	.5	10	100
1PXXXX06	RPT- SET AND CHKD	1	1.0	10	100
1P00BA01	CALL OUT- FUEL HEAT VALVE CHKLST	1	2.3	10	100
1P00BA02	READ ITEM- ENGINE OIL TEMP LMTS	1	2.0	10	100
1P00BA03	CALL OUT- OIL TEMP O K	1	1.5	10	100
1P00BB01	CALL OUT- MINIMUM FUEL GO-AROUND	1	1.5	10	100
1P00BB02	REPORT- MIN FUEL GO-AROUND CHKLST	1	1.5	10	100
1P00BB03	CALL OUT- FUEL PUMPS	1	1.0	10	100
1P00BB04	REPORT- PUMPS ON	1	1.0	10	
1P00BB05	CALL OUT- FUEL CROSSFEED SELECTOR	1	2.0	10	
1P00BB06	REPORT OPEN	1	.5	10	100
1P00BB07	REPORT AVOID SUSTAIN -ED HIGH NOSE-UP ATTITUDES	1	2.3	10	100
1P00BB08	ACKNOWLEDGE ROGER AVOID SUSTAINED HIGH NOSE-UP ATTITUDES	1	2.5	10	100
1P00BC01	RPT- FILTER ICING CHKLST	1	1.5	10	100
1P00BC02	READ- FUEL HEAT SW	1	1.0	10	100
1P00BD01	RPT- FUEL GAGES SHOW FUEL XFR PROBLEM, GET CHKLST	1	2.8	10	100
1P00BD02	RPT- INADVERTENT XFR OF FUEL TO CNTR TANK CHKLST	1	2.5	10	100
1P00BD03	READ- AFFECTED MAIN BOOST PUMPS	1	1.6	10	100
1P00BD04	READ- CNTR TANK BOOST PUMPS	1	2.2	10	100
1P00BD05	READ- RESET CIRCUIT BREAKER IF NECESSARY	1	2.4	10	100
1P00BD06	RSPND- ROGER RESET CIRCUIT BREAKER IF NEEDED	1	2.6	10	100
1P00BD07	READ- MAIN TANK BOOST PUMPS	1	1.3	10	100
1P00BD08	READ- XFEED VALVE REMAINS CLOSED	1	2.0	10	100

1P00BD09	RSPND- ROGER XFEED	1	2.0	10	100
	VALVE CLOSED			10	
1P00CB01	RPT- CSD LOW PRESS/	1	3.0	10	100
	HIGH TEMP LT CHKLST			10	
1P00CB02	READ- GENERATOR	1	2.0	10	100
	DRIVE DISCONNECT SW			10	
1P00CB03	RPT- DISCONNECT	1	.5	10	100
1P00CB04	READ- APU	1	1.0	10	100
1P00CB05	RPT- APU GEN START	1	1.8	10	100
	AND ON BUS			10	
1P00CD01	RPT- STDBY POWER LT	1	1.8	10	100
	OFF CHKLST			10	
1P00CD02	READ- STDBY PWR SW	1	1.5	10	100
1P00CD03	RPT- BATTERY	1	.5	10	100
1P00CE01	RPT- BUS OFF LT	1	1.5	10	100
	CHKLST			10	
1P00CE02	READ- GENERATOR SW	1	1.0	10	100
1P00CE03	READ- IF LT TRIPS ON	1	2.5	10	100
	AGAIN APU START AND			10	
	ON BUS			10	
1P00CE04	RSPND- ROGER APU ON	1	2.2	10	100
	BUS IF GEN NOT RESET			10	
1P00CE05	RPT- GENERATOR RESET	1	1.2	10	100
	TO ON			10	
1P00CF01	RPT- XFR BUS OFF LT	1	2.0	10	100
	CHKLST			10	
1P00CF02	READ- XFR BUS SW	1	2.5	10	100
	RESET TO AUTO			10	
1P00CF03	RPT- SW RESET	1	1.0	10	100
1P00CG01	RPT- EQUIPMENT COOL-	1	2.5	10	100
	ING OFF LT CHKLST			10	
1P00CG02	READ- EQUIP COOLING	1	1.8	10	100
	SW TO ALT			10	
1P00CG03	RPT- COOLING SW ALT	1	1.5	10	100
1P00DA01	RPT- LOSS HYDRAULIC	1	2.0	10	100
	SYSTEM-A CHKLST			10	
1P00DA02	READ- SYS-A FLT	1	3.0	10	100
	CNTRL - STDBY RDR			10	
1P00DA03	RPT- FLT CNTRL A ON	1	2.0	10	100
	STDBY			10	
1P00DA04	READ- HYD PUMPS OFF	1	2.0	10	100
1P00DA05	READ- AUTOPILOT HYD	1	3.0	10	100
	SYS SELECT SYS-B			10	
1P00DA06	RPT- AUTO ON SYS-B	1	2.0	10	100
1P00DA07	ADVISE- GROUND SPOIL	1	3.5	10	100
	ERS AND NOSE WHEEL			10	
	STEING ARE INOP			10	
1P00DA08	THRUST REVERSERS	1	3.5	10	100
	HAVE ACCUMULATOR			10	
	PRESSURE INBOARD			10	
	BRAKES HAVE			10	
1P00DA09	ACCUMULATOR PRESSURE	1	3.5	10	100
	CHECK WEATHER, PLAN			10	
	FLAPS 15 LANDING			10	
1P00DA10	RPT- ROGER GROUND	1	4.0	10	100
	AND INBD FLT SPOILER			10	
	OUT. ACCUMULTOR			10	
	PRESSURE FOR THRUST			10	
1P00DA11	REVERSER AND INBOARD	1	4.0	10	100
	BRAKES. PLAN FOR			10	

1P00EC01	FLAPS 15 LANDING. READ- PREPARE FOR LOSS OF ALL BUT STBY PWR AND FOR USE OF MANUAL TRIM	1	5.0	10 10 10 10 10	100
1P00EC02	READ- PITOT STATIC HEAT WILL BE INOP	1	2.0	10 10 10	100
1P00EC03	ADVISE- ROGER, LOSS OF GENERATORS POSSIB LE WITH ONLY STDBY AND BATT AVAILABLE	1	4.5	10 10 10 10	100
1P00EC04	UNDERSTAND ELEC TRIM OUT AND PITOT HEAT WILL BE INOP	1	3.5	10 10 10 10	100
1P00EC05	READ- BUS XFR SW OFF	1	2.0	10 10	100
1P00EC06	READ- WAIT A REASON- ABLE TIME TO DETERMI NE WETHER TO FOLLOW STEP A OR B BELOW	1	4.5	10 10 10 10	100
1P00EC07	RESTORE POWER SLOWLY NOTING IF SMOKE OCCU RS AND MONITOR ELEC LOADS	1	5.0	10 10 10 10	100
1P00EC08	ADVISE- ROGER, RESTO RE POWER SLOWLY MON- ITORING FOR SMOKE AND ELEC LOADS	1	3.0	10 10 10 10	100
1P00EC09	READ- NO.2 GEN SW ON	1	2.0	10 10	100
1P00EC10	READ- IF SMOKE DOES NOT RECURR CONTINUE WITH NO.1 GEN OFF. ENG NO.1 RVRSR INOP	1	6.2	10 10 10 10	100
1P00EC11	ADVISE-ROGER IF SMOK DIES LEAVE GEN#1 OFF ENG#1 RVRSR INOP	1	4.5	10 10 10	100
1P00EC12	READ- NO.1 GEN SW ON	1	2.0	10	100
1P00EC13	READ-NO.2 GEN SW OFF	1	2.0	10	100
1P00EC14	ADVISE- GEN#1 ON BUS GEN#2 OFF BUS	1	3.0	10 10	100
1P00EC15	READ- CONTINUE FLT WITH GEN#2 OFF BUS ENG#2 RVRSR INOP	1	4.5	10 10 10	100
1P00EC16	READ-NO.2 GEN SW ON	1	2.0	10	100
1P00EC17	READ-NO.1 GEN SW ON	1	2.0	10	100
1P00EC18	ADVISE- V/G OPERTIV	1	1.5	10	100
1P00EC19	READ- STDBY PWR SW OFF	1	2.0	10 10	100
1P00EC20	READ- BATT SW OFF	1	1.5	10	100
1P00EC21	READ- BUS XFR SW AUTO	1	2.0	10 10	100
1P00EC22	READ- IF POSSIBLE RESTORE PWR TO ANY PART OF THE A/C THAT CAN OPERATE NORMAL	1	4.0	10 10 10	100
1P00EC23	READ- WITH BATT SW OFF FIRE DETECT INOP LAND AS SOON AS POSSIBLE	1	4.0	10 10 10 10	100
1P00EC24	READ- USE SMOKE EVAC UATION PROCEDURE IF	1	2.5	10 10 10	100

	NECESSARY			10	
1P00EC25	ADVISE- ROGER, OPER-	1	4.0	10	100
	ATE SYSTEM NORMAL IF			10	
	POSSIBLE, FIRE DETEC			10	
	TION INOP			10	
1P00ED01	READ- OX MASKS AND	1	2.0	10	100
	SELECTORS ON - 100			10	
1P00ED02	READ- CREW COMMUNICA	1	2.0	10	100
	TIONS ESTABLISH			10	
1P00ED03	READ-PRESSURE MODE	1	2.0	10	100
	SELECT - MANUAL			10	
1P00ED04	READ-OUTFLOW VALVE	1	2.0	10	100
	CLOSE			10	
1P00ED05	READ-NO SMOKING, SEAT	1	3.0	10	100
	BELTS FASTEN SW - ON			10	
1P00ED06	READ- PASS OXYGEN	1	2.0	10	100
	(IF REQUIRED) ON			10	
1P00ED07	READ-START EMERGENCY	1	3.0	10	100
	DESCENT PROCEDURE IF			10	
	REQD			10	
1P00ED08	READ-CABIN ALTIMETER	1	3.5	10	100
	AND CLIMB INDIC -			10	
	MONITOR			10	
1P00ED09	READ-CREW OXYGEN SEL	1	2.0	10	100
	NORMAL			10	
1P00EE01	ADVISE-PASSENGERS	1	4.0	10	100
	AND CREW FASTEN SEAT			10	
	BELTS AND REMAIN			10	
	SEATED DURING DESCNT			10	
1P00EE02	READ-IF STRUCTURAL	1	3.0	10	100
	STRENGTH IN DOUBT			10	
	LIMIT SPEED AS MUCH			10	
	AS POSSIBLE			10	
1P00EE03	READ-REDUCE RATE OF	1	4.0	10	100
	DESCENT AND AVOID			10	
	HIGH MANUEVER LOADS			10	
1P00EE04	ADVISE-ROGER LIMIT	1	4.0	10	100
	SPEED, DESCENT, AND			10	
	G LOADS AS NEEDED			10	
1P00EE05	READ-START SWS FLT	1	1.5	10	100
1P00EE06	READ-THRST LVRS IDLE	1	1.5	10	100
1P00EE07	READ-SPD BRAKES FLT	1	1.5	10	100
1P00EE08	READ-TARGET SPD VMO	1	3.0	10	100
1P00EE09	READ-LEVEL OFF AT	1	4.5	10	100
	14000 OR MEA WHICH-			10	
	EVER HIGHER			10	
1P00EE10	READ-SPD BRAKES SET	1	2.0	10	100
	DOWN DETENT			10	
1P00EE11	READ-CREW OX NORMAL	1	1.5	10	100
1P00EE12	READ-START SWS AS	1	2.0	10	100
	REQUIRED			10	
1P00EF01	READ-MASTER FIRE	1	1.5	10	100
	WARNING - OFF			10	
1P00EF02	ADVISE- FIRE WARNING	1	1.5	10	100
	OFF			10	
1P00EF03	READ-FIRE WARN SW	1	3.0	10	100
	PULL AND ROTATE			10	
1P00EF04	READ-TO OVERRIDE	1	4.5	10	100
	FIRE SW LOCK, DEPRES			10	
	BUTTON WHILE PULLING			10	

	SWITCH			10	
1P00EF05	READ-ROTATE SW THRU	1	4.0	10	100
	MECHANICAL LIMIT AND			10	
	HOLD FOR AT LEAST			10	
	ONE SECOND			10	
1P00EG01	READ-MASTER FIRE	1	1.5	10	100
	WARN SW - RESET			10	
1P00EG02	READ-LNDG GEAR(MAX	1	4.5	10	100
	270 KTS) - DOWN			10	
1P00EG03	READ-DO NOT RETRACT	1	4.5	10	100
	LNDG GEAR UNTIL FIRE			10	
	IS OUT AND BRAKES			10	
	COOLED FOR 20 MIN			10	
1P00EG04	ADVISE-ROGER RETRACT	1	4.0	10	100
	LNDG GEAR AFTER			10	
	BRAKES COOLED AND			10	
	FIRE OUT			10	
1P00XX01	CALLOUT-HOW DO YOU	1	1.5	10	100
	HEAR ME			10	
1P00XX02	ADVISE-5 BY 5 HOW DO	1	2.0	10	100
	YOU HEAR ME			10	
1P00EX01	READ-OXYGEN MASKS ON	1	2.5	10	100
	REGULATOR SET ON 100			10	
1P00EX02	READ-SMOKE GOGGLES	1	1.5	10	100
	ON			10	
1P00EX03	READ-COCKPIT DOOR	1	1.5	10	100
	CLOSE			10	
1P00EX04	ADVISE-CREW COMM	1	1.5	10	100
	ESTABLISHED			10	
1P00EH01	READ-WINDOW SHOULD	1	4.0	10	100
	NOT BE OPENED UNLESS			10	
	SMOKE ORIGIN CONFIRM			10	
	ED TO BE IN COCKPIT			10	
1P00EH02	READ-NORMAL HOLDING	1	2.0	10	100
	AIRSPED - ESTAB			10	
1P00EH03	ADVISE-HOLDING AIR	1	1.5	10	100
	SPEED ESTABLISHED			10	
1P00EH04	READ-FIRST OFFICER	1	2.0	10	100
	SLIDING WINDOW OPEN			10	
1P00EH05	READ-PRESSURIZATION	1	2.5	10	100
	MODE SELECT - MAN			10	
1P00EH06	READ-CABIN ALT SELCT	1	4.0	10	100
	INCREASE MAX 10000			10	
1P00EH07	READ-CABIN RATE SEL	1	3.0	10	100
	ECT MAX INCREASE			10	
1P00EH08	READ-L AND R PACK	1	2.0	10	100
	SW'S ON			10	
1P00EH09	READ-ENGINE THRUST	1	4.0	10	100
	(MAX POSSIBLE) ABOVE			10	
	1.2 EPR			10	
1P00EH10	READ-COCKPIT AIRCOND	1	2.5	10	100
	AND GASPAR OUTLETS			10	
	OPEN			10	
1P00FA01	RPT- GEAR SEAL LT ON	1	2.0	10	100
1P00FA02	RPT- GEAR SEAL LT ON	1	2.5	10	100
	CHKLST			10	
1P00FA03	READ- GEAR SEAL SW-	1	2.0	10	100
	NORMAL			10	
1P00FC01	RPT- SYB A/B SHOW	1	2.0	10	100
	LOW BRAKE PRESSURE			10	

1P00FC02	READ- LOSS OF SYS A/	1	2.0	10	100
	B BRAKE PRESS			10	
1P00FC03	READ- AUTO BRAKE OFF	1	1.5	10	100
1P00FC04	READ- BRAKES- APPLY	1	2.0	10	100
	STEADY PRESSURE			10	
1P00FG01	CALLOUT- ANTISKID LT	1	2.0	10	100
	ON			10	
1P00FG02	READ-ANTISKID INOP	1	2.5	10	100
	CHKLST			10	
1P00FG03	READ-AUTO BRAKE OFF	1	1.5	10	100
1P00FG04	READ-IF BRAKING	1	4.0	10	100
	ACTION ABNORMAL			10	
	DURING LNDG SET ANTI			10	
	SKID SWS TO OFF			10	
1P00FG05	READ- BRAKE WITH	1	1.5	10	100
	CAUTION			10	
1P00FF01	RPT- AUTOBRAKE INOP	1	2.5	10	100
	LIGHT ON			10	
1P00FF02	READ- AUTOBRAKE INOP	1	2.5	10	100
	CHECKLIST			10	
1P00GA01	READ- DUCT OVRHT LT	1	2.0	10	100
	CHKLST			10	
1P00GA02	READ-TRIP RESET SW	1	2.0	10	
	RESET			10	
1P00GA03	READ- TEMP SELECT	1	2.0	10	100
	MAN(AS RQD)			10	
1P00GB01	READ- PACK TRIP	1	1.5	10	100
	CHKLST			10	
1P00GB02	READ- TEMP SELECT	1	1.5	10	100
	WARMER			10	
1P00GB03	READ- TRIP RESET SW	1	2.0	10	100
	RESET			10	
1P00GC01	READ- WING/BODY OVHT	1	2.0	10	100
	CHKLST			10	
1P00GC02	READ- ISOLATION	1	2.5	10	100
	VALVE- CLOSE			10	
1P00GC03	READ- BLEED SW OFF	1	1.5	10	100
1P00GD01	READ- BLEED TRIP	1	1.5	10	100
	CHKLST			10	
1P00GD02	READ- TRIP RESET SW	1	2.0	10	100
	RESET			10	
1P00GE01	READ- AUTO FAILCKLST	1	1.5	10	100
1P00GE02	READ- MODE SELECT	1	2.0	10	100
	STDBY			10	
1P00GF01	READ- OFF SCHEDULE	1	2.0	10	100
	DESCENT			10	
1P00GF02	READ- FLT ALT COUNTR	1	3.0	10	100
	- RESET TO BARO ALT			10	
1P00HA01	READ- ENGINE ANTI-	1	3.5	10	100
	ICE VALVE FAIL CKLST			10	
1P00HA02	READ- TOTAL AIR TEMP	1	4.5	10	100
	10C OR ABOVE SET N1			10	
	70 OR BELOW			10	
1P00JA01	CALLOUT- WINDOW XX	1	2.0	10	100
	CRACKING			10	
1P00JA02	READ WINDOW XX HEAT	1	2.5	10	100
	SW OFF			10	
1P00JA03	READ-REDUCE PRESS	1	4.5	10	100
	DIFFERENCE AS FOLLOWS			10	
	: CRACKED OUTER PANE			10	

	NO CHANGE			10	
1P00JA04	INNER PANE CRAKED,	1	4.5	10	100
	MAX DIFFERENCE 5 PSI			10	
	MAX ALT FL 230, BOTH			10	
1P00JA05	CRACKED MAX PRESSURE	1	4.5	10	100
	DIFFERENTIAL 2 PSI			10	
	MAX ALT 13000 DESCEN			10	
	D NORMALLY OBSERVE			10	
1P00JA06	WINDOW HT INOP PROC	1	2.0	10	100
	ADVISE- OUTER PANE			10	
	CRACKED CONTINUE			10	
	NORMAL FLT			10	
1P00JB01	READ- WINDOW OVRHT	1	2.0	10	100
	CHKLST			10	
1P00JB02	READ- WINDOW HT SW	1	2.0	10	
	OFF			10	
1P00JB03	ADVISE- DESCEND NOR-	1	3.0	10	100
	MAL, OBSERVE WINDOW			10	
	HT INOP PROC			10	
1P00KA01	ADVISE- STAB TRIM	1	2.0	10	100
	OUT			10	
1P00KA02	READ- MOVE CONTROL	1	4.5	10	100
	COLUMN SMOOTHLY AS			10	
	REQD TO MAINTAIN			10	
	AIRCRAFT ATTITUDE			10	
1P00KA03	READ- STAB TRIM SWS	1	2.0	10	100
	CUTOUT			10	
1P00KA04	READ- STABILIZER	1	2.0	10	100
	TRIM MANUALLY			10	
1P00KB01	ADVISE- I HAVE JAM-	1	3.5	10	100
	MED CONTROLS, HELP			10	
	ME BREAK THEM LOOSE			10	
1P00KB02	READ- JAMMED, STICKY,	1	3.0	10	100
	FAULTY CONTROLS-			10	
	OVERPOWER			10	
1P00KB03	READ- DO NOT TURN	1	4.5	10	100
	OFF ANY FLT CNTRL			10	
	POWER SWS			10	
1P00KC01	ADVISE- STABILIZER	1	4.0	10	100
	IS JAMMED OPEN MAN			10	
	TRIM HANDLE AND HELP			10	
	BREAK IT LOOSE			10	
1P00KC02	READ- BOTH PILOTS	1	4.0	10	100
	SIMULTANEOUSLY AT-			10	
	TEMPT TO BREAK STAB			10	
	JAM. RESTOW HANDLES.			10	
1P00KC03	READ- MAINTAIN IN-	1	2.5	10	100
	TRIM AIRSPEED UNTIL			10	
	START OF APPROACH			10	
1P00KC04	READ- ESTABLISH LNDG	1	3.0	10	100
	CONFIGURATION EARLY,			10	
	PLAN FLAPS 15 LNDG			10	
1P00KC05	ADVISE- ROGER, MAIN-	1	4.5	10	100
	TAIN AIRSPEED, PLAN			10	
	FLAPS 15 LNDG, ESTAB			10	
	LISH CONFIG EARLY			10	
1P00KL01	READ- MOVE FLAP LVR	1	4.5	10	100
	TO DETENT NEAREST			10	
	ACTUAL FLAP POS AND			10	
	LAND CORRESPOND VREF			10	

1P00KL02	READ- FOR FLAP POS	1	4.5	10	100
	LESS THAN 15 SET			10	
	VREF 40+55 KTS			10	
1P00KL03	ADVISE- ROGER, FLAPS	1	2.5	10	100
	LESS THAN 15 VREF40			10	
	+55			10	
1P00KX01	READ- ANTI-ICE	1	1.0	10	100
1P00KX02	ADVISE- SET	1	.5	10	100
1P00KX03	READ- AIR CONDITION-	1	2.0	10	100
	ING AND PRESSURIZ-			10	
	ATION			10	
1P00KX04	ADVISE- SET AND	1	1.5	10	100
	CHECKED			10	
1P00KX05	READ- START SWS	1	1.5	10	100
1P00KX06	ADVISE- FLT	1	.5	10	100
1P00KX07	READ- INBD LNDG LTS	1	2.5	10	100
	AT 10000- ON			10	
1P00KX08	READ- ALTIMETER AND	1	1.5	10	100
	INSTRUMENTS			10	
1P00KX09	ADVISE- SET AND CHKD	1	1.0	10	100
1P00KX10	READ- EPR AND IAS	1	2.0	10	100
	BUGS - VREF & 15			10	
1P00KX11	ADVISE- VREF&15 SET	1	2.5	10	100
1P00K 01	READ- ABNORMAL TYPE	1	2.0	10	100
	LNDG CHKLST			10	
1P00K 02	READ- RECALL	1	1.0	10	100
1P00K 03	ADVISE- CHECKED	1	1.0	10	100
1P00K 04	READ- SPEED BRAKES	1	1.0	10	100
1P00K 05	ADVISE- ARMED, GRN LT	1	1.0	10	100
1P00K 06	READ- FLAPS	1	1.0	10	100
1P00K 07	ADVISE- 15, GRN & GRN	1	1.5	10	100
1P00K 08	REAR- GEAR	1	1.0	10	100
1P00K 09	ADVISE- DOWN, 3GRN	1	1.0	10	100
1P00KC06	READ- ANTICIPATE	1	4.0	10	100
	HIGHER THAN NORMAL			10	
	ELEVATOR FORCES DUR-			10	
	ING APP AND LNDG			10	
1P00KC07	ADVISE- ROGER, ELEV	1	3.0	10	100
	FORCES MAY BE HIGHER			10	
	NORMAL			10	
1P00KD01	READ- LIMIT BANK	1	2.5	10	100
	ANGLE TO 15DEG			10	
	WHILE ON FINAL			10	
1P00KD02	ADVISE- ROGER BANK	1	2.5	10	100
	ANGLE LESS THAN 15			10	
1P00KM01	READ- LIMIT BANK	1	4.5	10	100
	ANGLE TO LESS THAN			10	
	15DEG BELOW 210KTS			10	
1P00KM02	ADVISE- ROGER BANK	1	4.0	10	100
	ANGLE LESS THAN 15			10	
	DEG UNDER 210 DEG			10	
1P00KM03	READ- IF PLACARDED	1	3.5	10	100
	TIRE SPEED EXCEEDED			10	
	TIRE FAILURE MAY			10	
	OCCUR			10	
1P00KM04	ADVISE- ROGER, TIRE	1	3.0	10	100
	FAILURE POSSIBLE IF			10	
	SPEED EXCEEDED			10	
1P00KN01	READ- FLT CONTROL	1	2.0	10	100
	LOW PRESSURE CHKLST			10	

1P00KN02	READ- FLT CONTROL SW	1	2.5	10	100
	- STDBY RUDDER			10	
1P00KN03	ADVISE- SYS A ON	1	1.5	10	100
	STDBY RUDDER			10	
1P00KP01	READ- YAW DAMPER LT	1	2.0	10	100
	CHKLST			10	
1P00KP02	READ- YAW DAMPER SW	1	2.0	10	100
	RESET TO ON			10	
1P00KP03	READ- YAW DAMPER LT	1	2.5	10	100
	STILL ON - SET YAW			10	
	DAMPER TO OFF			10	
1P00KP04	READ- DO NOT ENGAGE	1	2.5	10	100
	AUTOPILOT ABOVE			10	
	FL300			10	
1P00KQ01	ADVISE- STAB OUT OF	1	2.5	10	100
	TRIM GET CHKLST			10	
1P00KQ02	READ- STAB OUT OF	1	1.5	10	100
	TRIM CHKLST			10	
1P00KQ03	READ- COTROL COLUMN	1	2.0	10	100
	HOLD FIRMLY			10	
1P00KQ04	READ- AUTOPILOT	1	1.5	10	100
	DISENGAGE			10	
1P00KQ05	READ- STAB TRIM -	1	2.5	10	100
	AS REQD			10	
1P00KR01	ADVISE- SPEED BRAKE	1	2.5	10	100
	DID NOT ARM GET			10	
	CHKLST			10	
1P00KR02	READ- SPEED BRAKE	1	2.5	10	100
	NOT ARMED CHKLST			10	
1P00KR03	READ- SPEED BRAKE	1	3.0	10	100
	LVR - DOWN			10	
1P00KR04	READ- AT TOUCHDOWN	1	3.0	10	100
	SPEED BRAKE LVR UP			10	
1P00KS01	READ- MACH TRIM FAIL	1	1.5	10	100
	CHKLST			10	
1P00KS02	READ- AIRSPEED,	1	3.0	10	100
	LIMIT TO MACH .74			10	
				10	
1P010001	CALL OUT-CCOMPASS	1	2.5	10	100
	HDG IS XXX DEGREES!			10	
1P010002	CALL OUT-ALTIMETER	1	2.5	10	100
	SETTING IS XXXX!			10	
1P010003	CALL OUT-SET V1 TO	1	6	10	100
	XXX KNOTS AND VR TO			10	
	XXX KNOTS!			10	
1P010004	CALL OUT-WHAT IS	1	1.5	10	100
	THE EPR SETTING!			10	
1P010005	CALL OUT-SET EPR	1	2.5	10	100
	AT XXX!			10	
1P010006	CALL OUT - BEFORE	1	2	10	100
	START CHECKLIST!			10	
1P010007	CALL OUT - INTERIOR	1	3	10	100
	AND EXTERIOR PRE-			10	
	FLIGHT CHECK!			10	
1P010008	CALL OUT INCOMPLETE	1	1	10	100
1P010009	CALL OUT - LIGHT	1	1.3	10	100
	TEST!			10	
1P010010	CALL OUT - CHECKED!	1	1	10	100
1P010011	CALL OUT - OXYGEN	1	1.3	10	
	AND INTERPHONE!			10	

1P010012	CALL OUT - ϕ CHECKED!	1	1	10	100
1P010013	CALL OUT - ϕ YAW DAM- PER !	1	1	10	100
1P010014	CALL OUT - ϕ ON!	1	0.5	10	100
1P010015	CALL OUT - ϕ FUEL!	1	0.5	10	100
1P010016	CALL OUT - ϕ XXX LBS, OK FOR DISPATCH, ALL PUMPS ON!	1	4.5	10	100
1P010017	CALL OUT - ϕ GALLEY POWER !	1	0.7	10	100
1P010018	CALL OUT - ϕ EMERG EXT LTS!	1	1.2	10	100
1P010019	CALL OUT - ϕ ARMED!	1	0.6	10	100
1P010020	CALL OUT - ϕ SEAT BELT AND NO SMOKING LTS!	1	2	10	100
1P010021	CALL OUT - ϕ AUTO!	1	0.5	10	100
1P010022	CALL OUT - ϕ HYDRAU- LICS!	1	1	10	100
1P010023	CALL OUT - ϕ AIR CON- DITIONING AND PRES- SURIZATION!	1	2	10	100
1P010024	CALL OUT - ϕ 1 PACK, BLEEDS ON, SET!	1	2.3	10	100
1P010025	CALL OUT - ϕ AUTO- PILOT!	1	0.5	10	100
1P010026	CALL OUT - ϕ NORMAL!	1	0.7	10	100
1P010027	CALL OUT - ϕ DISEN- GAGED!	1	0.8	10	100
1P010028	CALL OUT - ϕ INSTRU- MENTS!	1	0.8	10	100
1P010029	CALL OUT - ϕ CROSS- CHECKED!	1	1	10	100
1P010030	CALL OUT - ϕ ANTI-SKID	1	0.9	10	100
1P010031	CALL OUT - ϕ AUTO BRAKES!	1	0.9	10	100
1P010032	CALL OUT - ϕ OFF!	1	0.5	10	100
1P010033	CALL OUT - ϕ RADIOS, RADAR, AND TRANS- PONDER!	1	2	10	100
1P010034	CALL OUT - ϕ SET AND STANDBY!	1	1.2	10	100
1P010035	CALL OUT - ϕ SPEED BRAKE!	1	0.8	10	100
1P010036	CALL OUT - ϕ DOWN DETENT!	1	1	10	100
1P010037	CALL OUT - ϕ PARKING BRAKE!	1	0.7	10	100
1P010038	CALL OUT - ϕ SET!	1	0.5	10	100
1P010039	CALL OUT - ϕ STAB TRIM CUTOUT SWITCHES!	1	1.7	10	100
1P010040	CALL OUT - ϕ WHEEL WELL FIRE WARNING!	1	2	10	100
1P010041	CALL OUT - ϕ RUDDER AND AILERON TRIM!	1	1.5	10	100
1P010042	CALL - ϕ ZERO!	1	0.7	10	100
1P010043	CALL OUT - ϕ PAPERS!	1	0.8	10	100
1P010044	CALL OUT - ϕ ABOARD!	1	0.7	10	100
1P010045	CALL OUT - ϕ ZFW, EPR, AND IAS BUGS!	1	2.5	10	100

1P0

1P010046	CALL OUT - φ AIRCON- DITONING PACK!	1	1.3	10	100
1P010047	CALL OUT - φ PACKS OFF	1	0.9	10	100
1P010048	CALL OUT - φ START PRESSURE!	1	0.9	10	100
1P010049	CALL OUT - φ XXX PSI!	1	1.6	10	100
1P010050	CALL OUT - φ ANTI-COL- LISSION LT!	1	1.2	10	100
1P010051	CALL OUT - φ BEFORE START CHECKLIST COMPLETE!	1	1.7	10	100
1P010052	CALL OUT - φ CONTINUE BELOW THE LINE!	1	1.7	10	100
1P010053	INFORM GROUND CREW φ READY FOR PUSHBACK!	1	1.4	10	100
1P010054	GROUND CREW REPORTS φ ROGER!	1	0.8	10	100
1P010055	RADIO COMM - φ CLEAR- ANCE DELIVERY, THIS IS NASA 515 AT GATE X, IFR TO WASH NATL!	1	5.0	10	100
1P010056	MON RADIO COMM- φ NASA 515, IFR TO WASHING- TON NATIONAL, CLEAR AS FILED. CLIMB AND	1	4.26	10	100
1P010057	MAINTAIN FIVE THOU- SAND FEET, NOISE ABATEMENT PROCEDURES ARE IN EFFECT. CON-	1	5.68	10	100
1P010058	TACT ATLANTA DEPAR- TURE ON ONE TWO FIVE POINT SEVEN, SQUAWK TWO TWO ONE POINT	1	5.68	10	100
1P010059	THREE, OVER!	1	1.42	10	100
1P010060	RADIO COMM - φ NASA 515, ROGER, CLEARED AS FILED, MAINTAIN FIVE THOUSAND, NOISE	1	3.66	10	100
1P010061	ABATEMENT PROCEDURES IN EFFECT. CONTACT ATLANTA DEPARTURE ON ONE TWO FIVE POINT!	1	4.88	10	100
1P010062	MON RADIO COMM- φ NASA 515, CLEARANCE CORRECT. CONTACT GROUND CONTROL ON	1	3.50	10	100
1P010063	ONE TWO ONE POINT NINER WHEN READY TO TAXI!	1	2.50	10	100
1P010064	RADIO COMM- φ NASA 515, ROGER!	1	1.7	10	100
1P010065	MON RADIO COMM- φ INFORMATION KILO? ONE SIX ONE ZERO OB- SERVATION, 3000	1	4.08	10	100
1P010066	SCATTERED, CEILING 5000 BROKEN, VISIBI- LITY TWO THREE, TEM- PERATURE FIVE NINER,	1	5.44	10	100
1P010067	WIND ONE ONE FIVE	1	5.44	10	100

	DEGREES AT SEVEN		10
	GUSTING TO ONE SIX,		10
	ALTIMETER TWO NINER		10
1P010068	EIGHT SIX. LANDINGS	1 5.44	10 100
	RUNWAYS ZERO EIGHT,		10
	NINER RIGHT. DEPAR-		10
	TURES RUNWAYS ZERO		10
1P010069	EIGHT, NINER LEFT.	1 5.44	10 100
	NOISE ABATEMENT PRO-		10
	CEDURES ARE IN EF-		10
	FECT. ADVISE CON-		10
1P010070	RADIO COMM - ATLANTA	1 4.00	10 100
	GROUND CONTROL, THIS		10
	IS NASA 515 AT GATE		10
1P010071	X, REQUEST PERMIS-	1 3.00	10 100
	SION TO PUSHBACK.		10
	WE HAVE INFORMATION		10
	KILO, OVER!		10
1P010072	MON RADIO COMM-	1 4.50	10 100
	NASA 515, ATLANTA		10
	GROUND, ROGER. CLEAR		10
	TO PUSHBACK. ADVISE		10
1P010073	SEVEN, SQUAWK TWO	1 2.44	10 100
	TWO ONE THREE, OVER!		10
1P010074	TROLLER ON INITIAL	1 4.08	10 100
	CONTACT YOU HAVE		10
	INFORMATION KILLO !		10
1P010075	WHEN READY TO TAXI,	1 1.50	10 100
	OVER. !		10
1P010076	MON INTPH COMM -	1 .9	10 100
	ALL CLEAR!		10
1P020001	MON RADIO COMM -	1 4	10 100
	ATC CLEARS NASA 515		10
	AS FILED. SOCLE 9L		10
	DEPARTURE, ROUTE JAY		10
1P020002	EIGHT ONE SIX R	1 4	10 100
	JASON ONE STAR.		10
	CLIMB AND MAINTAIN		10
	FLIGHT LEVEL THREE		10
1P020003	THREE ZERO. CONTACT	1 4	10 100
	ATLANTA DEPARTURE ON		10
	125.7, SQUAWK 2213,		10
	OVER!		10
1P020004	RADIO COMM - NASA	1 4	10 100
	515, ROGER. CLEARED		10
	AS FILED. SOCLE 9L		10
	DEPARTURE, ROUTE JAY		10
1P020005	EIGHT ONE SIX R,	1 4	10 100
	JASON ONE STAR.		10
	CLIMB AND MAINTAIN		10
	FLIGHT LEVEL THREE		10
1P020006	THREE ZERO. DEPAR-	1 4	10 100
	TURE ON 125.7,		10
	SQUAWK 2213, OVER. !		10
1P020007	CALL OUT-FLIGHT	1 2	10 100
	PLAN ENTERED AND		10
	CHECKED!		10
1P020008	CALL OUT-EADI!	1 1	10 100
1P020009	CALL OUT -ON AND	1 1	10 100
	CHECKED!		10

1P020010	CALL OUT -MFD!	1	6	10	100
1P020011	CALL OUT -NCDU!	1	1	10	100
1P020012	CALL OUT- AGCS!	1	1	10	100
1P020013	CALL OUT-ATT CWS!	1	1.2	10	100
1P030001	MON INTPHN COMM -	1	0.9	10	100
	ALL CLEAR!			10	
1P030002	INTPHN COMM -	1	1.3	10	100
	STARTING NO.2!			10	
1P030003	INTPHN COMM -	1	1.3	10	100
	STARTING NO.1!			10	
1P030004	CALL OUT -AFTER	1	1.5	10	100
	START CHECKLIST!			10	
1P030005	CALL OUT -ELECTRI-	1	0.8	10	100
	CAL!			10	
1P030006	CALL OUT- GENERA-	1	1.2	10	100
	TORS ON!			10	
1P030007	CALL OUT -PITOT	1	0.9	10	100
	HEAT!			10	
1P030008	CALL OUT- ANTI-ICE!	1	0.9	10	100
1P030009	CALL OUT -NOT REQD!	1	1	10	100
1P030010	CALL OUT- AIR CONDI-	1	1.6	10	100
	TIONING AND PRESSU-			10	
	RIZATION!			10	
1P030011	CALL OUT- PACKS ON,	1	1.3	10	100
	FLT!			10	
1P030012	CALL OUT -START	1	0.9	10	100
	SWITCHES!			10	
1P030013	CALL OUT -FLT!	1	0.6	10	100
1P030014	CALL OUT -APU!	1	0.8	10	100
1P030015	CALL OUT -OFF!	1	.5	10	100
1P030016	CALL OUT -START	1	1	10	100
	LEVERS!			10	
1P030017	CALL OUT -OFF!	1	0.5	10	100
1P030018	CALL OUT- CHECKLIST	1	1.4	10	100
	COMPLETED!			10	
1P040001	MON RADIO COMM -	1	3.0	10	100
	NASA 515, CROSS			10	
	RUNWAY ZERO EIGHT,			10	
	OVER!			10	
1P040003	RADIO COMM -NASA	1	1.7	10	100
	515, ROGER!			10	
1P040030	MON RADIO COMM-	1	3.0	10	100
	NASA 515, HOLD			10	
	SHORT OF NEXT INTER-			10	
	SECTION, CLEARED			10	
1P040031	BEHIND EASTERN TRI-	1	2.0	10	100
	JET, OVER!			10	
1P040032	MON RADIO COMM -	1	3.0	10	100
	NASA 515, CONTACT			10	
	ATLANTA TOWER ON ONE			10	
	ONE NINER POINT			10	
1P040033	FIVE, OVER.!	1	1.0	10	100
1P040034	RADIO COMM -NASA	1	3.0	10	100
	515 ROGER, ONE ONE			10	
	NINER POINT FIVE.!			10	
1P040035	RADIO COMM -ATLANTA	1	3.50	10	100
	GROUND CONTROL, NASA			10	
	515 READY TO TAXI,			10	
	OVER!			10	
1P040036	MON RADIO COMM -	1	3.50	10	100

	4NASA 515, TAXI TO		10
	RUNWAY NINER LEFT		10
	VIA NORTHEAST-SOUTH-		10
1P040037	WEST TAXIWAY. HOLD	1 3.50	10 100
	SHORT OF RUNWAY ZERO		10
	EIGHT, OVER!		10
1P040038	RADIO COMM -4NASA	1 3.75	10 100
	515, ROGER. TAXI		10
	RUNWAY NINER LEFT,		10
	HOLD SHORT RUNWAY		10
1P040039	ZERO EIGHT.!	1 1.25	10 100
1P070001	CALL OUT -480 KNOTS!	1 1.1	10 100
1P070002	CALL OUT -4V1!	1 0.9	10 100
1P070003	CALL OUT -4VR!	1 0.9	10 100
1P070004	CALL OUT -4GEAR UP!	1 1.1	10 100
1P070005	RADIO COMM -4ATLANTA	1 3.6	10 100
	TOWER, THIS IS NASA		10
	515. READY FOR TAKE-		10
	OFF, RUNWAY NINER		10
1P070006	LEFT, OVER!	1 1.2	10 100
1P070007	NON RADIO COMM -	1 2.5	10 100
	4NASA 515, TAXI INTO		10
	POSITION AND HOLD,		10
	OVER!		10
1P070008	RADIO COMM - 4515,	1 2.5	10 100
	TAXI INTO POSITION		10
	AND HOLD, ROGER!		10
1P070009	NON RADIO COMM -	1 2.5	10 100
	4NASA 515 CLEARED		10
	FOR IMMEDIATE TAKE-		10
	OFF!		10
1P070010	RADIO COMM -4515	1 1.5	10 100
	ROLLING!		10
1P070011	CALL OUT -4TAKEOFF	1 1	10 100
	FLAPS!		10
1P070012	CALL OUT -4BEFORE	1 1.5	10 100
	TAKEOFF CHECKLIST!		10
1P070013	CALL OUT- 4RECALL!	1 1	10 100
1P070014	CALL OUT-4CHECKED!	1 0.8	10 100
1P070015	CALL OUT-4FLIGHT	1 1	10 100
	CONTROLS!		10
1P070016	CALL OUT-4FLAPS!	1 0.6	10 100
1P070017	CALL OUT -415, GREEN	1 1	10 100
	LIGHT!		10
1P070018	CALL OUT-4STABILIZER	1 1.2	10 100
	TRIM!		10
1P070019	CALL OUT-4COCKPIT	1 1	10 100
	DOOR!		10
1P070020	CALL OUT-4LOCKED!	1 0.7	10 100
1P070021	CALL OUT-4TAKEOFF	1 1	10 100
	BRIEFING!		10
1P070022	CALL OUT-4FLY RUN-	1 4.5	10 100
	WAY HEADING UNTIL		10
	CROSSING RUNWAY 27R		10
	MIDDLE MARKER. TURN		10
1P070023	TO HEADING 105 AND	1 5.5	10 100
	CLIMB AND MAINTAIN		10
	5000. EXPECT VECTORS		10
	AFTER NEW HEADING!		10
1P070024	CALL OUT-4ROGER!	1 0.6	10 100

1P070025	CALL OUT-φTRANSPON-	1	1.5	10	100
	DER AND RADAR!			10	
1P070026	CALL OUT- φON!	1	0.5	10	100
1P070027	CALL OUT-φINBOARD	1	1.5	10	100
	LANDING LIGHTS!			10	
1P070028	CALL OUT-φBEFORE	1	2.2	10	100
	TAKEOFF CHECKLIST			10	
	COMPLETE!			10	
1P070029	CALL OUT-φXX UNITS!	1	1.4	10	100
1P070030	CALL OUT -φTRANSPON-	1	.7	10	100
	DER!			10	
1P070031	CALL OUT -φAGCS!	1	1.1	10	100
1P070032	CALL OUT -φATT CWS!	1	1.1	10	100
1P070033	CALL- GEAR UP, LOCKED	1	1.1	10	100
1P070034	CALL- V2 PLUS 15	1	1.1	10	100
1P090001	MON RADIO COMM -	1	4.5	10	100
	φNASA 515, CONTACT			10	
	ATLANTA DEPARTURE ON			10	
	ONE TWO FIVE POINT			10	
1P090002	RADIO COMM -φNASA	1	1.7	10	100
	515, ROGER!			10	
1P090003	RADIO COMM -φATLANTA	1	3.5	10	100
	DEPARTURE CONTROL,			10	
	THIS IS NASA 515,			10	
	OVER!			10	
1P090005	MON RADIO COMM-	1	3.5	10	100
	φNASA 515, ATLANTA			10	
	DEPARTURE, ROGER.			10	
	SQUAWK IDENT!			10	
1P090006	MON RADIO COMM -	1	3.2	10	100
	φNASA 515, RADAR			10	
	CONTACT, SAY ALTI-			10	
	TUDE, OVER!			10	
1P090007	RADIO COMM -φNASA	1	2.3	10	100
	515, LEAVING ONE			10	
	EIGHT HUNDRED!			10	
1P090008	MON RADIO COMM-	1	3.1	10	100
	(NASA 515, CLIMB AND			10	
	MAINTAIN FLIGHT LVL			10	
	230. CONTACT ATLANTA			10	
1P090009	CENTER ON ONE TWO	1	3.1	10	100
	THREE POINT NINER			10	
	FIVE, OVER!			10	
1P090010	RADIO COMM -φ515,	1	3.5	10	100
	ROGER. CLIMB AND			10	
	MAINTAIN FLIGHT			10	
	LEVEL TWO THREE ZERO			10	
1P090011	, CONTACT CENTER ON	1	3.5	10	100
	ONE TWO THREE POINT			10	
	NINER FIVE, GOOD			10	
	DAY!			10	
1P090012	RADIO COMM -	1	.45	10	100
	φATLANTA CENTER,			10	
	THIS IS NASA 515 OUT			10	
	OF 11000 FOR FL230,			10	
1P090013	OVER!	1	.5	10	100
1P090014	MON RADIO COMM -	1	3.5	10	100
	φNASA 515, THIS IS			10	
	ATLANTA CENTER,			10	
	ROGER. SQUAWK IDENT!			10	

1P090015	MON RADIO COMM -	1	3.5	10	100
	✂NASA 515, RADAR			10	
	CONTACT. REPORT			10	
	LEAVING FL210, OVER!			10	
1P090016	RADIO COMM - ✂NASA	1	3.5	10	100
	515, RAGER. REPORT			10	
	FLIGHT LEVEL TWO ONE			10	
	ZERO!			10	
1P090017	CALL OUT- ✂AFTER	1	1.2	10	100
	TAKEOFF CHECKLIST!			10	
1P090018	CALL OUT- ✂START	1	0.9	10	100
	SWITCHES!			10	
1P090019	CALL OUT- --✂OFF!	1	0.5	10	100
1P090020	CALL OUT -✂LANDING	1	0.9	10	100
	GEAR!			10	
1P090021	CALL OUT-✂UP AND	1	1	10	100
	OFF!			10	
1P090022	CALL OUT -✂FLAPS!	1	0.6	10	100
1P090023	CALL OUT -✂AFTER	1	1.9	10	100
	TAKEOFF CHECKLIST			10	
	COMPLETE!			10	
1P090024	SEVEN, GOOD-DAY SIR!	1	1.5	10	100
1P090025	MON RADIO COMM -	1	3.0	10	100
	✂NASA 515, FOR VEC-			10	
	TOR TO INTERCEPT JAY			10	
	THIRTY SEVEN, TURN			10	
1P090026	LEFT HEADING ZERO	1	4.0	10	100
	SEVEN ZERO, CLIMB			10	
	AND MAINTAIN NINER			10	
	THOUSAND, OVER!			10	
1P090027	RADIO COMM -✂NASA	1	4.0	10	100
	515, ROGER. LEFT			10	
	HEADING ZERO SEVEN			10	
	ZERO, MAINTAIN NINER			10	
1P090028	THOUSAND.!	1	.5	10	100
1P090029	MON RADIO COMM -	1	3.5	10	100
	✂NASA 515, CLIMB AND			10	
	MAINTAIN ONE TWO			10	
	THOUSAND, OVER!			10	
1P090030	RADIO COMM - ✂NASA	1	2.8	10	100
	515, ROGER. MAINTAIN			10	
	ONE TWO THOUSAND!			10	
1P090031	MON RADIO COMM -	1	3.75	10	100
	✂NASA 515, MAINTAIN			10	
	FLIGHT LEVEL ONE			10	
	EIGHT ZERO. TRAFFIC			10	
1P090032	TWELVE OACLOCK, FOUR	1	5.00	10	100
	MILES, NORTHEAST			10	
	BOUND, C-130 ASSIGND			10	
	FLIGHT LEVEL ONE			10	
1P090033	NINER ZERO, OVER!	1	1.25	10	100
1P090034	RADIO COMM -✂NASA	1	4.0	10	100
	515, ROGER. MAINTAIN			10	
	✂NASA 515, CLIMB AND			10	
	FLIGHT LEVEL ONE			10	
	EIGHT ZERO. WE HAVE			10	
1P090035	TRAFFIC IN SIGHT!	1	1.0	10	100
1P090036	MON RADIO COMM -	1	3.0	10	100
	✂NASA 515, CLEAR OF			10	
	TRAFFIC, CLIMB AND			10	

1P090037	MAINTAIN FLIGHT LEVEL TWO THREE ZERO	1	4.0	10	100
	. REPORT LEAVING FLIGHT LEVEL TWO ONE ZERO, OVER!			10	
1P090038	RADIO COMM - NASA 515, ROGER. MAINTAIN TWO THREE ZERO.	1	3.5	10	100
	REPORT LEAVING TWO ONE ZERO.!	1	.5	10	100
1P090040	RADIO COMM - ATLANTA CENTER, NASA 515. LEAVING FLIGHT LEVEL TWO ONE ZERO, OVER!	1	4.0	10	100
1P090041	MON RADIO COMM - NASA 515, ROGER. CLIMB AND MAINTAIN FLIGHT LEVEL THREE	1	3.5	10	100
1P090042	ONE ZERO. CONTACT CENTER ON ONE THREE THREE POINT SEVEN, OVER!	1	3.5	10	100
1P090043	RADIO COMM - NASA 515, ROGER. MAINTAIN FLIGHT LEVEL THREE ONE ZERO, CENTER ON	1	3.7	10	100
1P090044	ONE THREE THREE POINT SEVEN.!	1	2.3	10	100
1P090045	RADIO COMM - ATLANTA CENTER, THIS IS NASA 515 OUT OF FLIGHT LEVEL TWO THREE ZERO	1	3.7	10	100
1P090046	FOR TWO NINER ZERO, OVER!	1	2.3	10	100
1P090047	MON RADIO COMM - NASA 515, ATLANTA CENTER, ROGER. SQUAWK IDENT. REPORT	1	3.7	10	100
1P090048	LEAVING FLIGHT LEVEL TWO EIGHT ZERO, OVER!	1	3.3	10	100
1P090049	RADIO COMM - NASA 515, ROGER. REPORT FLIGHT LEVEL TWO EIGHT ZERO.!	1	4.0	10	100
1P090050	RADIO COMM - ATLANTA CENTER, NASA 515 LEAVING FLIGHT LEVEL TWO EIGHT ZERO, OVER!	1	4.0	10	100
1P090051	MON RADIO COMM - NASA 515, ROGER. CLIMB AND MAINTAIN FLIGHT LEVEL TWO	1	3.5	10	100
1P090052	NINER ZERO, OVER!	1	1.5	10	100
1P090053	RADIO COMM - NASA 515, ROGER. MAINTAIN FLIGHT LEVEL TWO NINER ZERO.!	1	4.0	10	100
1P090054	MON RADIO COMM - NASA 515, CLIMB AND	1	3.5	10	100

	MAINTAIN FLIGHT LVL			10	
	THREE THREE ZERO.			10	
1P090055	CONTACT CENTER ON	1	3.5	10	100
	ONE THREE FOUR POINT			10	
	FIVE FIVE, OVER!			10	
1P090056	RADIO COMM - NASA	1	4.0	10	100
	515, ROGER. MAINTAIN			10	
	FLIGHT LEVEL THREE			10	
	THREE ZERO, CENTER			10	
1P090057	ON ONE THREE FOUR	1	2.0	10	100
	POINT FIVE FIVE.!			10	
1P090058	RADIO COMM - ATLANTA	1	4.0	10	100
	CENTER, NASA 515			10	
	LEAVING FLIGHT LEVEL			10	
	TWO NINER ZERO FOR			10	
1P090059	FLIGHT LEVEL THREE	1	2.0	10	100
	THREE ZERO, OVER!			10	
1P090060	MON RADIO COMM -	1	3.5	10	100
	NASA 515, ATLANTA			10	
	CENTER, ROGER.			10	
	SQUAWK IDENT			10	
1P090061	MON RADIO COMM -	1	3.5	10	100
	NASA 515, RADAR			10	
	CONTACT. REPORT			10	
	LEVEL AT FLIGHT			10	
1P090062	LEVEL THREE THREE	1	2.0	10	100
	ZERO, OVER!			10	
1P090063	CALL OUT - FLAPS 1!	1	.8	10	100
1P090064	CALL OUT - FLAPS	1	.8	10	100
	ZERO!			10	
1P090065	CALL OUT -	1	2.5	10	100
	SPARTAMBURG VOR ON			10	
	NAV 2!			10	
1P090066	CALL OUT -	1	2.5	10	100
	GORDONSVILL VOR ON			10	
	NAV 1!			10	
1P090067	CALL OUT - ONE	1	1.7	10	100
	THOUSAND FEET TO			10	
	LEVEL OF!			10	
1P090068	RADIO COMM - ATLAN-	1	3.1	10	100
	TA DEPARTURE, THIS			10	
	IS NASA 515, OVER!			10	1P0
1P090069	MON RADIO COMM -	1	4	10	100
	NASA 515, CONTACT			10	
	ATLANTA CENTER ON			10	
	ONE TWO THREE POINT			10	
1P090070	NINER FIVE, OVER!	1	1.5	10	100
1P090073	RADIO COMM - NASA	1	3.7	10	100
	515, ROGER. ONE TWO			10	
	THREE POINT NINER			10	
	FIVE.!			10	
1P090074	MON RADIO COMM -	1	4	10	100
	NASA 515, ROGER.			10	
	CONTACT CENTER ON			10	
	ONE THREE THREE			10	
1P090075	POINT SEVEN, OVER!	1	1	10	100
1P090076	RADIO COMM - 515,	1	3.1	10	100
	ROGER. ONE THREE			10	
	THREE POINT SEVEN.!			10	
1P090077	RADIO COMM - ATLANTA	1	3.4	10	100

	CENTER, THIS IS NASA			10
	515 LEAVING FLIGHT			10
	LEVEL TWO ONE ZERO			10
1P090078	FOR FLIGHT LEVEL	1	3.4	10 100
	THREE THREE ZERO,			10
	OVER.!			10
1P090079	MON RADIO COMM -	1	3	10 100
	4NASA 515, MAINTAIN			10
	FLIGHT LEVEL TWO SIX			10
	ZERO. TRAFFIC AT			10
1P090080	TWELVE O'CLOCK FOUR	1	4.2	10 100
	MILES, NORTHEAST			10
	BOUND, C-130 ASSIGN-			10
	ED FLIGHT LEVEL TWO			10
1P090081	SEVEN ZERO, OVER!	1	2	10 100
1P090082	RADIO COMM- 4515,	1	3.3	10 100
	ROGER. MAINTAIN			10
	FLIGHT LEVEL TWO SIX			10
	ZERO. WE HAVE TRAF-			10
1P090083	FIC IN SIGHT.!	1	1.1	10 100
1P090084	MON RADIO COMM -	1	3.1	10 100
	4NASA 515, CLEAR OF			10
	TRAFFIC. CLIMB AND			10
	MAINTAIN FLIGHT LEV-			10
1P090085	EL THREE THREE ZERO.	1	3.1	10 100
	REPORT LEAVING TWO			10
	EIGHT ZERO, OVER.!			10
1P090086	RADIO COMM -4515,	1	3	10 100
	ROGER. MAINTAIN			10
	THREE THREE ZERO,			10
	REPORT LEAVING TWO			10
1P090087	EIGHT ZERO.!	1	1	10 100
1P090088	MON RADIO COMM -	1	3	10 100
	4NASA 515, CLIMB AND			10
	MAINTAIN FLIGHT LEV-			10
	EL THREE ONE ZERO,			10
1P090089	OVER.!	1	.5	10 100
1P090090	RADIO COMM - 4515,	1	3	10 100
	ROGER. MAINTAIN			10
	FLIGHT LEVEL THREE			10
	ONE ZERO.!			10
1P090091	RADIO COMM -4ATLANTA	1	3	10 100
	CENTER, NASA 515			10
	LEAVING FLIGHT LEV-			10
	EL THREE ONE ZERO			10
1P090092	FOR FLIGHT LEVEL	1	3	10 100
	THREE THREE ZERO,			10
	OVER.!			10
1P090093	RADIO COMM -4ATLANTA	1	4	10 100
	CENTER, THIS IS NASA			10
	515 OUT OF ELEVEN			10
	THOUSAND FOR FLIGHT			10
1P090094	LEVEL THREE THREE	1	1.5	10 100
	ZERO, OVER.!			10
1P090095	CALL OUT -4ALTIMETER	1	3	10 100
	BARO SETTING IS TWO			10
	NINE POINT NINE TWO!			10
1P090096	CALL OUT- 4SPARTAN-	1	2	10 100
	BUR VOR IS ON NAV 1!			10
1PB9EA01	CALL OUT-(INITATE	1	1.5	10 100

1PB9EA02	FIRE CONTROL PROC.) CALL OUT(MONITORING NO.1 FIRE WARNING LIGHT)	1	2.00		10 10 10 10	100
1PB9EA04	CALL OUT (THRUST LEVER TO IDLE)	1	1.3		10 10 10	100
1PB9EA06	CALL OUT (NO.1 START LEVER TO CUT OFF)	1	1.4		10 10 10	100
1PB9EA08	CALL OUT (FIRE WARNING SWITCH PULL)	1	1.3		10 10 10	100
1PB9EA10	CALL OUT (FIRE WARNING STILL ON, HANDLE ROTATION NOW)	1	3.0		10 10 10	100
1PB9EA11	CALL OUT (LEFT BOTTLE DISCHARGING)	1	1.5		10 10 10	100
1PB9EA12	CALL OUT (FIRE EXTINGUISHED)	1	.5		10 10 10	100
1PB9EA13	RADIO COMM (ALT DEP CONTROL-NASA 515- ENGINE FIRE-EXT.- REQ.EMERG.APP.)	1	6.8		10 10 10 10	100
1PB9EA14	RADIO COMM(NASA-515 UNDERSTAND ENG.FIRE OUT-EMERG.APP REQ- TURN LEFT 360 DEGREE)	1	3.8		10 10 10 10	100
1PB9EA27	MAINTAIN SPEED AND ALTITUDE SQUWNK 7700 + IDENT)	1	3.0		10 10 10 10	100
1PB9EA15	RADIO COMM(ALT.D.C.- 515 TURN LEFT 360DEG MAINTAIN A/S+HDG SQ.7700+IDENT)	1	11.		10 10 10 10	100
1PB9EA16	CALL OUT(MASTER FIRE WARNING OFF)	1	1.5	20	10 10 10	100
1PB9EA17	CALL OUT(ENG.NO.1 THRUST LEVER TO IDLE)	1	1.5	20	10 10 10	100
1PB9EA18	CALL OUT(ENG.NO.1 START LEVER OFF)	1	1.5	20	10 10 10	100
1PB9EA19	CALL OUT(ENG.FIRE WARNING SW PULLED)	1	1.5	20	10 10 10	100
1PB9EA20	CALL OUT(ISOLATION VALVE SW. CLOSED)	1	1.5	20	10 10 10	100
1PB9EA21	CALL OUT(APU BLEED VALVE OFF)	1	1.5	20	10 10 10	100
1PB9EA22	CALL OUT(APU START)	1	1.5		10 10 10	100
1PB9EA23	CALL OUT(FUEL,ELEC., AND WING ANTI-ICE ADJUSTED)	1	3.5	20	10 10 10	100
1PB9EA24	CALL OUT(NO.1 AFT +FWD FUEL AND GEN. SW. OFF)	1	4.2		10 10 10	100
1PB9EA25	CALL OUT(WING ANTI-ICE ADJUSTED)	1	1.5		10 10 10	100
1PB9EA26	CALL OUT(MASTER CAUTION LIGHT OFF)	1	1.5		10 10 10	100
1P09FE01	CALL OUT-4SYS B PUMP NO. 1 OVERHEATED!	1	2.7		10 10 10	100
1P09FE02	CALL OUT-4PUMP	1	1.5		10 10 10	100

	SWITCH OFF!			10	
1P09FE03	CALL OUT-φCHECKLIST COMPLETE!	1	1.6	10	100
1P11FD01	CALL OUT-φSYSTEM B LOW PRESSURE!	1	2	10	100
1P11FD02	CALL OUT-φSYSTEM B FLT CONTROL SW-STBY RUDDER!	1	3.7	10	100
1P11FD03	CALL OUT-φSYSTEM B HYD PUMPS-OFF!	1	3	10	100
1P11FD04	CALL OUT-φAUTOPILOT HYD SYS SELECTOR-SYS A!	1	4.2	10	100
1P11AF01	CALL OUT-φNO 2 OIL FILTER BYPASS!	1	3.2	10	100
1P11AF02	CALL OUT-φLITE OUT AT XXX EPR!	1	3.5	10	100
1P11CB01	CALL OUT-φELECTRICAL FAILURE!	1	2.1	10	100
1P11CB02	CALL OUT-φNO 2 CSD LOW OIL PRESSURE!	1	4	10	100
1P11CB03	CALL OUT-φAPU ON NO. 2 BUS!	1	3.7	10	100
1P11CB04	CALL OUT-φGEN DRIVE DISCONNECT SWITCH-DISCONNECT!	1	3.7	10	100
1P11CB05	CALL OUT-φAPU-START, ON BUS!	1	4	10	100
1P110001	RADIO COMM -φATLANTA CENTER, THIS IS NASA 515 LEVEL AT FLIGHT LEVEL THREE THREE	1	4.0	10	100
1P110002	ZERO, OVER!	1	.2	10	100
1P110003	MON RADIO COMM - φNASA 515, ROGER!	1	1.7	10	100
1P110004	RADIO COMM -φATLANTA CENTER, THIS IS NASA 515. REQUEST VECTORS FOR RETURN TO	1	4.0	10	100
1P110005	ATLANTA, OVER!	1	1.0	10	100
1P110006	MON RADIO COMM - φNASA 515, ROGER. STANDBY FOR INSTRUCTIONS!	1	3.0	10	100
1P110007	MON RADIO COMM - φNASA 515, FOR VECTOR TO INTERCEPT LANIER SIX ARRIVAL,	1	3.66	10	100
1P110008	PULASKI TRANSITION, TURN LGFT HEADING TWO SEVEN ZERO. CONTACT ATLANTA CENTER	1	4.88	10	100
1P110009	ON ONE THREE FIVE POINT THREE FIVE, OVER!	1	2.44	10	100
1P110010	RADIO COMM -φ515, ROGER. LEFT HEADING TWO SEVEN ZERO, LANIER SIX ARRIVAL,	1	4.0	10	100
1P110011	CENTER ONE THREE	1	3.0	10	100

	FIVE POINT THREE			10
	FIVE.!			10
1P110012	RADIO COMM - ATLANTA	1	3.5	10 100
	CENTER, THIS IS NASA			10
	515 LEVEL AT THREE			10
	THREE ZERO TURNING			10
1P110013	TO TWO SEVEN ZERO,	1	1.5	10 100
	OVER!			10
1P110014	MON RADIO COMM -	1	2.5	10 100
	NASA 515, ROGER.			10
	SQUAWK IDENT!			10
1P110015	MON RADIO COMM-	1	2.0	10 100
	NASA 515, RADAR			10
	CONTACT!			10
1P110016	MON RADIO COMM -	1	3.5	10 100
	NASA 515, DESCEND			10
	AND MAINTAIN FLIGHT			10
	LEVEL THREE ONE ZERO			10
1P110017	. CONTACT CENTER ON	1	3.5	10 100
	ONE THREE TWO POINT			10
	SEVEN FIVE, OVER!			10
1P110018	RADIO COMM - NASA	1	4.0	10 100
	515, ROGER. MAINTAIN			10
	FLIGHT LEVEL THREE			10
	ONE ZERO, CENTER			10
1P110019	ONE THREE TWO POINT	1	2.0	10 100
	SEVEN FIVE.			10
1P110020	CALL OUT - PULASKI	1	2.5	10 100
	VOR ON NAV 1!			10
1P130001	MON RADIO COMM -	1	3.7	10 100
	NASA 515, FOR VEC-			10
	TORS TO INTERCEPT			10
	JAY EIGHT FIFTEEN R,			10
1P130002	TURN LEFT HEADING	1	2.5	10 100
	TWO SEVEN ZERO, OVER			10
1P130003	RADIO COMM - 515,	1	2.7	10 100
	ROGER. LEFT HEADING			10
	TWO SEVEN ZERO!			10
1P130004	MON RADIO COMM -	1	4.5	10 100
	NASA 515, YOU ARE			10
	CLEARED TO THE AT-			10
	LANTA INTERNATIONAL			10
1P130005	AIRPORT VIA JAY	1	4.5	10 100
	EIGHT FIFTEEN R AND			10
	SHINE OH ONE STAR.			10
	PTA AT LAKESIDE IS			10
1P130006	TEN TWENTY ONE OH	1	.5	10 100
	OH, OVER!			10
1P130007	MON RADIO COMM -	1	4	10 100
	NASA 515, CONTACT			10
	CENTER ON ONE THREE			10
	FIVE POINT THREE			10
1P130008	FIVE, OVER!	1	.3	10 100
1P130009	RADIO COMM - 515,	1	3.1	10 100
	ROGER. ONE THREE			10
	FIVE POINT THREE			10
	FIVE!			10
1P130010	RADIO COMM - 515,	1	4	10 100 1P1
	ROGER. CLEARED TO			10
	ATLANTA VIA SHINE OH			10

1P130011	ONE. PTA LAKESIDE TEN TWENTY ONE OH OH.!	1	3.5	10	
1P140001	RADIO COMM -@ATLANTA CENTER, THIS IS NASA 515 LEAVING FLIGHT LEVEL THREE THREE	1	4.0	10	100
1P140002	ZERO FOR FLIGHT LVL THREE ONE ZERO, OVER	1	2.0	10	100
1P140003	MON RADIO COMM - @NASA 515, ATLANTA CENTER, ROGER. SQUAWK IDENT!	1	3.0	10	100
1P140004	MON RADIO COMM - @NASA 515, RADAR CONTACT!	1	2.0	10	100
1P140005	MON RADIO COMM - @NASA 515, FOR VEC- TOR TO INTERCEPT PULASKI TWO TWO FIVE	1	3.27	10	100
1P140006	RADIAL, TURN LEFT HEADING TWO FOUR ZERO, CLEARED TO THE ATLANTA INTERNA-	1	4.36	10	100
1P140007	TIONAL AIRPORT VIA THE LANIER SIX AR- RIVAL, PULASKI TRAN- SITION, OVER!	1	4.36	10	100
1P140008	RADIO COMM -@515, ROGER. LEFT HEADING TWO FOUR ZERO FOR PULASKI TWO TWO FIVE	1	4.0	10	100
1P140009	RADIAL, LANIER SIX ARRIVAL.!	1	2.0	10	100
1P140010	MON RADIO COMM - @NASA 515, CONTACT CENTER ON ONE THREE TWO POINT EIGHT, OVER	1	3.5	10	100
1P140011	RADIO COMM -@NASA 515, ROGER. ONE THREE TWO POINT EIGHT.!	1	3.5	10	100
1P140012	RADIO COMM -@ATLANTA CENTER, NASA 515 LEVEL AT FLIGHT LVL THREE ONE ZERO, OVER!	1	4.0	10	100
1P140013	MON RADIO COMM - @NASA 515, ATLANTA CENTER, ROGER. SQUAWK IDENT!	1	3.0	10	100
1P140014	MON RADIO COMM- @NASA 515, RADAR CONTACT!	1	2.0	10	100
1P140015	MON RADIO COMM - @NASA 515, DESCEND AND MAINTAIN FLIGHT LEVEL TWO FOUR ZERO.	1	3.9	10	100
1P140016	REPORT LEAVING FLT LEVEL TWO SIX ZERO, OVER!	1	2.6	10	100

1P140017	RADIO COMM - 5 515, ROGER. MAINTAIN FLT LEVEL TWO FOUR ZERO. REPORT FLIGHT LEVEL	1	4.0	10 10 10 10	100
1P140018	TWO SIX ZERO!	1	1.0	10	100
1P140019	RADIO COMM - A TLANTA CENTER, NASA 515 LEAVING FLIGHT LEVEL TWO SIX ZERO, OVER!	1	4.0	10 10 10 10	100
1P140020	MON RADIO COMM - N ASA 515, DESCEND AND MAINTAIN ONE ONE THOUSAND. CONTACT	1	3.75	10 10 10 10	100
1P140021	CENTER ON ONE TWO FIVE POINT TWO, OVER!	1	2.50	10 10	100
1P140022	RADIO COMM - N ASA 515, ROGER. MAINTAIN ONE ONE THOUSAND, CENTER ONE TWO FIVE	1	4.0	10 10 10 10	100
1P140023	POINT TWO.!	1	1.0	10	100
1P140024	RADIO COMM - A TLANTA CENTER, THIS IS NASA 515 LEAVING FLIGHT LEVEL TWO FIVE ZERO	1	4.0	10 10 10 10	100
1P140025	FOR ONE ONE THOU- SAND, OVER!	1	2.0	10 10	100
1P140026	MON RADIO COMM - N ASA 515, ATLANTA CENTER, ROGER. SQUAWK IDENT. ALTI-	1	3.5	10 10 10 10	100
1P140027	METER TWO NINER POINT EIGHT EIGHT!	1	2.5	10 10	100
1P140028	MON RADIO COMM - N ASA 515, MAINTAIN ONE FIVE THOUSAND. CLEARANCE LIMIT IS	1	4.0	10 10 10 10	100
1P140029	NOW LANIER INTERSEC- TION. HOLD NORTHWEST OF FIX ON NORCROSS ZERO FOUR ONE RADIAL	1	5.33	10 10 10 10	100
1P140030	ONE AND ONE-HALF MINUTE RIGHT TURNS. EXPECT FURTHER CLEARANCE AT ONE	1	5.33	10 10 10 10	100
1P140031	SEVEN ONE FIVE, OVER!	1	1.33	10	100
1P140032	RADIO COMM - 5 515, ROGER. MAINTAIN ONE FIVE THOUSAND. HOLD NORTHWEST OF LANIER	1	4.5	10 10 10 10	100
1P140033	INTERSECTION, RIGHT TURNS.!	1	1.5	10 10	100
1P140034	MON RADIO COMM - N ASA 515, CLEARED TO ATLANTA INTER- NATIONAL AIRPORT VIA	1	3.27	10 10 10 10	100
1P140035	LAST ROUTING CLEARED . INCREASE SPEED TO TWO THREE ZERO KNOTS . DESCEND AND MAIN-	1	4.36	10 10 10 10	100
1P140036	TAIN ONE ONE THOU-	1	4.36	10	100

	SAND. EXPECT AN ILS			10	
	RUNWAY ZERO EIGHT			10	
	APPROACH, OVER!			10	
1P140037	RADIO COMM - 515,	1	4.5	10	100
	ROGER. INCREASE SPD			10	
	TWO THREE ZERO.			10	
	MAINTAIN ONE ONE			10	
1P140038	THOUSAND!	1	.5	10	100
1P140039	MON RADIO COMM -	1	4.0	10	100
	515, CONTACT			10	
	APPROACH CONTROL ON			10	
	ONE TWO SIX POINT			10	
1P140040	NINER, OVER!	1	1.0	10	100
1P140041	RADIO COMM - 515,	1	4.0	10	100
	ROGER. APPROACH			10	
	ON ONE TWO SIX POINT			10	
	NINER!			10	
1P140042	CALL OUT - TOCCOA	1	2.3	10	100
	VOR ON NAV 2 !			10	
1P140043	CALL OUT - ALTIMETER	1	2.4	10	100
	SETTING IS TWO NINER			10	
	POINT EIGHT!			10	
1P140044	CALL OUT - NORCROSS	1	2.3	10	100
	VOR ON NAV 1 !			10	
1P140045	CALL OUT - 1000 FEET	1	1.7	10	100
	TO LEVEL OFF!			10	
1P140046	CALL OUT - CHATA-	1	2.3	10	100
	NOOGA VOR ON NAV 2!			10	
1P140047	CALL OUT - THIRTY	1	.8	10	100
	SECONDS!			10	
1P140048	CALL OUT - SIXTY	1	.8	10	100
	SECONDS!			10	
1P140049	CALL OUT - EIGHTY	1	.8	10	100
	FIVE SECONDS!			10	
1P150001	MON RADIO COMM -	1	4	10	100
	515, REPORT			10	
	LEAVING FLIGHT LEVEL			10	
	TWO SIX ZERO. ALTI-			10	
1P150002	METER TWO NINER	1	2	10	100
	EIGHT EIGHT, OVER!			10	
1P150003	RADIO COMM - 515	1	3	10	100
	ROGER. REPORT FLIGHT			10	
	LEVEL TWO SIX ZERO.!			10	
1P150005	MON RADIO COMM -	1	3	10	100
	515, ROGER.			10	
	CONTACT CENTER ON			10	
	ONE TWO FIVE POINT			10	
1P150006	TWO, OVER.!	1	1.5	10	100
1P150007	RADIO COMM - 515,	1	3.3	10	100
	ROGER. CENTER ONE			10	
	TWO FIVE POINT TWO.!			10	
1P150008	MON RADIO COMM -	1	3.7	10	100
	515, ATLANTA			10	
	CENTER, ROGER.			10	
	SQUAWK IDENT!			10	
1P150009	MON RADIO COMM -	1	4	10	100
	515, DUE TO			10	
	TRAFFIC YOUR PLANNED			10	
	TIME OF ARRIVAL AT			10	
1P150010	LAKESIDE IS NOW	1	4	10	100

	10:22:15				10	
1P150011	RADIO COMM - 515,	1	4.5		10	100
	ROGER, TIME OF AR-				10	
	RIVAL NOW 10:22:15!				10	
1P150012	CALL OUT -FLIGHT	1	2		10	100
	PLAN UPDATED WITH				10	
	NEW ALTITUDE!				10	
1P150013	CALL OUT -ALTIMETER	1	2.7		10	100
	BARD SETTING IS TWO				10	
	NINER EIGHT EIGHT				10	
1P150014	CALL OUT -FLIGHT	1	3		10	100
	PLAN UPDATED WITH				10	
	NEW PTA AT LAKESIDE!				10	
1P160001	MON RADIO COMM -	1	3.42		10	100
	INFORMATION LIMA:				10	
	ONE SEVEN ZERO FIVE				10	
	OBSERVATION- TWO				10	
1P160002	FIVE HUNDRED SCAT-	1	4.56		10	100
	TERED CEILING FOUR				10	
	THOUSAND BROKEN.				10	
	VISIBILITY ONE SIX.				10	
1P160003	TEMPERATURE FIVE	1	4.56		10	100
	NINER. WIND ONE ONE				10	
	ZERO DEGREES AT TEN				10	
	GUSTING TO ONE SEVEN				10	
1P160004	. ALTIMETER TWO -	1	4.56		10	100
	NINER EIGHT FOUR.				10	
	SIMULTANEOUS PARAL-				10	
	LEL APPROACHES IN				10	
1P160005	OPERATION ON RUNWAYS	1	4.56		10	100
	ZERO EIGHT AND NINER				10	
	RIGHT. ADVISE CON-				10	
	TROLLER ON INITIAL				10	
1P160006	CONTACT YOU HAVE IN-	1	2.28		10	100
	FORMATION LIMA.!				10	
1P160007	RADIO COMM -ATLANTA	1	4.0		10	100
	APPROACH CONTROL,				10	
	THIS IS NASA 515				10	
	LEVEL AT ONE ONE				10	
1P160008	THOUSAND WITH INFOR-	1	2.0		10	100
	NATION LIMA, OVER!				10	
1P160009	MON RADIO COMM -	1	2.5		10	100
	NASA 515, ROGER.				10	
	SQUAWK IDENT.!				10	
1P160010	MON RADIO COMM -	1	4		10	100
	NASA 515, TURN LEFT				10	
	HEADING TWO ONE ZERO				10	
	REDUCE SPEED TO TWO				10	
1P160011	ZERO ZERO, OVER!	1	2		10	100
1P160012	RADIO COMM -515,		5		10	100
	ROGER. LEFT HEADING				10	
	TWO ONE ZERO, SLOW				10	
	TO TWO ZERO ZERO!				10	
1P160013					10	
1P160014	MON RADIO COMM -	1	4.0		10	100
	NASA 515, REDUCE				10	
	SPEED TO ONE NINER				10	
	ZERO KNOTS, OVER!				10	
1P160015	RADIO COMM - 515,	1	2.5		10	100
	ROGER. ONE IONER				10	

	ZERO KNOTS!			10
1P160016	MON RADIO COMM -	1	4.0	10 100
	✦NASA 515, CONTACT			10
	APPROACH CONTROL ON			10
	ONE TWO SEVEN POINT			10
1P160017	TWO FIVE, OVER!	1	1.0	10 100
1P160018	RADIO COMM-✦515,	1	3.0	10 100
	ROGER. ONE TWO SEVEN			10
	POINT TWO FIVE!			10
1P160019	RADIO COMM -✦ATLANTA	1	3.5	10 100
	APPROACH CONTROL,			10
	THIS IS NASA 515			10
	LEVEL AT ONE ONE			10
1P160020	THOUSAND, OVER!	1	.75	10 100
1P160021	MON RADIO COMM -	1	3.5	10 100
	✦NASA 515, ATLANTA			10
	APPROACH. ROGER.			10
	SQUAWK IDENT!			10
1P160022	MON RADIO COMM -	1	3.0	10 100
	✦NASA 515, TURN RT			10
	HEADING TWO SEVEN			10
	ZERO. REDUCE SPEED			10
1P160023	TO ONE SEVEN ZERO	1	4.0	10 100
	KNOTS. DESCEND AND			10
	MAINTAIN FOUR FIVE			10
	HUNDRED, OVER!			10
1P160024	RADIO COMM -✦515,	1	4.0	10 100
	ROGER. LEFT HEADING			10
	TWO SEVEN ZERO. SLOW			10
	TO ONE SEVEN ZERO.			10
1P160025	MAINTAIN FOUR FIVE	1	2.0	10 100
	HUNDRED.!			10
1P160026	MON RADIO COMM -	1	3.5	10 100
	✦NASA 515, TURN LEFT			10
	HEADING ONE EIGHT			10
	ZERO, OVER!			10
1P160027	RADIO COMM -✦515	1	3.0	10 100
	ROGER. LEFT HEADING			10
	ONE EIGHT ZERO.!			10
1P160028	MON RADIO COMM -	1	3.21	10 100
	✦NASA 515, YOU ARE			10
	FOURTEEN MILES FROM			10
	THE OUTER MARKER.			10
1P160029	TURN LEFT HEADING	1	4.28	10 100
	ONE TWO ZERO FOR			10
	VECTOR TO INTERCEPT			10
	FINAL APPROACH			10
1P160030	COURSE. YOU ARE	1	4.28	10 100
	CLEARED FOR AN ILS			10
	RUNWAY ZERO EIGHT			10
	APPROACH. CONTACT			10
1P160031	TOWER AT THE OUTER	1	3.21	10 100
	MARKER ON ONE ONE			10
	NINER POINT FIVE,			10
	OVER!			10
1P160032	RADIO COMM- ✦515,	1	4.0	10 100
	ROGER. LEFT HEADING			10
	ONE TWO ZERO. ILS			10
	RUNWAY ZERO EIGHT			10
1P160033	APPROACH. TOWER AT	1	3.0	10 100

	OUTER MARKER ON ONE			10	
	ONE NINER POINT FIVE			10	
1P160034	MON RADIO COMM-	1	3.5	10	100
	ΦNASA 515, REDUCE			10	
	SPEED TO ONE FIVE			10	
	ZERO KNOTS OVER!			10	
1P160035	RADIO COMM -Φ515,	1	2.5	10	100
	ROGER. ONE FIVE ZERO			10	
	KNOTS!			10	
1P160036	MON RADIO COMM -	1	3.5	10	100
	ΦNASA 515, MAINTAIN			10	
	CURRENT SPEED UNTIL			10	
	CROSSING STUBBS, OVER			10	
1P160037	RADIO COMM -	1	1.7	10	100
	Φ515, ROGER!			10	
1P160038	RADIO COMM-ΦATLANTA	1	4.0	10	100
	TOWER, THIS IS NASA			10	
	515 OVER LAKESIDE			10	
	INBOUND FOR RUNWAY			10	
1P160039	ZERO EIGHT, OVER!	1	1.0	10	100
1P160040	MON RADIO COMM -	1	4.0	10	100
	ΦNASA 515, ATLANTA			10	
	TOWER, ROGER. CLEAR			10	
	TO LAND RUNWAY ZERO			10	
1P160041	EIGHT. WIND ONE ONE	1	3.0	10	100
	ZERO DEGREES AT ZERO			10	
	NINER.!			10	
1P160042	CALL OUT-ΦALTIMETER	1	3.5	10	100
	BARO SETTING IS TWO			10	
	NINER POINT EIGHT			10	
	FOUR!			10	
1P160043	CALL OUT-ΦDESCENT	1	2	10	100
	AND APPROACH CHECK-			10	
	LIST!			10	
1P160044	CALL OUT-ΦANTI-ICE!	1	1	10	100
1P160045	CALL OUT-ΦNOT REQD!	1	.8	10	100
1P160046	CALL OUT -ΦAIR CON-	1	1.8	10	100
	DITIONING AND PRES-			10	
	SURIZATION!			10	
1P160047	CALL OUT ΦSET!	1	.4	10	100
1P160048	CALL OUT-ΦSTART	1	.9	10	100
	SWITCHES!			10	
1P160049	CALL OUT ΦFLIGHT!	1	.5	10	100
1P160050	CALL OUT-ΦINBOARD	1	1.1	10	100
	LANDING LIGHTS!			10	
1P160051	CALL OUT -ΦON!	1	.3	10	100
1P160052	CALL OUT -ΦALTIMETER	1	1.4	10	100
	AND INSTRUMENTS!			10	
1P160053	CALL OUT-ΦSET AND	1	1.3	10	100
	CROSSCHECKED!			10	
1P160054	CALL OUT-ΦEPR AND	1	1.5	10	100
	IAS BUGS!			10	
1P160055	CALL OUT -ΦV-REF IS	1	1.9	10	100
	XXX KNOTS!			10	
1P160056	CALL OUT -ΦBUGS SET	1	1.6	10	100
	AND CROSS-CHECKED!			10	
1P160057	CALL OUT -ΦCHECKLIST	1	1.3	10	100
	COMPLETED!			10	
1P160058	CALL OUT -ΦFLAPS 1!	1	.7	10	100
1P160059	CALL OUT -ΦRUNWAY 08	1	2.9	10	100

	ILS IS ON NAV 1!			10	
1P160060	CALL OUT -φREG VOR	1	2	10	100
	IS ON NAV 2!			10	
1P160061	CALL OUT -φFLAPS 5!	1	.7	10	100
1P160062	CALL OUT -φFLAPS 15!	1	.7	10	100
1P160063	MON RADIO COMM -	1	4	10	100
	φNASA 515, REDUCE			10	
	SPEED TO ONE SIX			10	
	ZERO KNOTS, OVER!			10	
1P160064	RADIO COMM-φ515,	1	2.5	10	100
	ROGER. ONE SIX ZERO			10	
	KNOTS!			10	
1P160065	CALL OUT -φLAKESIDE	1	1.5	10	100
	ON ADF-1!			10	
1P160066	CALL OUT -φLAKESIDE	1	1.5	10	100
	ON ADF-2!			10	
1P160067	CALL OUT -φLOCALIZER	1	1.3	10	100
	ALIVE!			10	
1P160068	CALL OUT-φI HAVE	1	1.5	10	100
	NAV 2 DATA!			10	
1P160069	CALL OUT -φILS ON	1	1.5	10	100
	NAV 1!			10	
1P160070	CALL OUT -φFLAPS 25!	1	.7	10	100
1P160071	CALL OUT -φGLIDE	1	1	10	100
	SLOPE ALIVE!			10	
1P160072	CALL OUT -φCROSSING	1	1	10	100
	STUBBS!			10	
1P160073	CALL OUT -φFLAPS 40!	1	.7	10	100
1P160074	CALL OUT -φRUNWAY IN	1	1	10	100
	SITE!			10	
1P160075	CALL OUT -φGEAR DOWN	1	1.8	10	100
	AND LANDING CHECK-			10	
	LIST!			10	
1P160076	CALL OUT -φRECALL!	1	.6	10	100
1P160077	CALL OUT -φCHECKED!	1	.4	10	100
1P160078	CALL OUT -φSPEED	1	.7	10	100
	BRAKES!			10	
1P160079	CALL OUT -φARMED -	1	1.3	10	100
	GREEN LIGHT!			10	
1P160080	CALL OUT -φLANDING	1	.7	10	100
	GEAR!			10	
1P160081	CALL OUT -φDOWN,	1	1	10	100
	THREE GREEN!			10	
1P160082	CALL OUT -φFLAPS!	1	.4	10	100
1P160083	CALL OUT -φFORTY,	1	1.1	10	100
	GREEN LIGHT!			10	
1P160084	CALL OUT -φCHECKLIST	1	1.1	10	100
	COMPLETE!			10	
1P160085	CALL OUT -φFIVE HUN-	1	1.6	10	100
	DRED FEET ABOVE RUN-			10	
	WAY!			10	
1P160086	CALL OUT -φDECISION	1	.8	10	100
	HEIGHT!			10	
1P160087	MON RADIO COMM -	1	3.5	10	100
	φNASA 515, EXIT RUN-			10	
	WAY NEXT INTERSEC-			10	
	TION. CONTACT GROUND			10	
1P160088	POINT NINER WHEN	1	2.5	10	100
	CLEAR OF RUNWAY,			10	
	OVER!			10	

1P160089	RADIO COMM - ϕ 515, ROGER. POINT NINER WHEN CLEAR!	1	2.5	10	100
1P160090	RADIO COMM - ϕ ATLANTA GROUND, THIS IS NASA 515. TAXI TO GATE X, OVER!	1	3.5	10	100
1P160091	MON RADIO COMM - ϕ NASA 515, ATLANTA GROUND, TAXI TO RAMP VIA NORTHEAST=SOUTH-	1	3.5	10	100
1P160092	WEST TAXIWAY, OVER!	1	1.0	10	100
1P16EK01	RADIO COMM - ϕ APPROACH CONTORL, THIS IS NASA 515. THE PILOT IS INCA-	1	3	10	100
1P16EK02	PACITATED. I WILL MAKE A NORMAL ILS APPROACH AND LAND-	1	4	10	100
1P16EK03	ING. REQUEST AN AM- BULANCE TO STANDBY AT GATE X,OVER!	1	3	10	100
1P16EK04	MON RADIO COMM- ϕ NASA 515, APPROACH CONTROL. UNDERSTAND THAT YOUR PILOT IS	1	3	10	100
1P16EK05	INCAPACITATED AND REQUEST AMBULANCE. WILL USE NORMAL ILS APPROACH AND LAND.	1	4	10	100
1P16EK06	ADVISE IF YOU RE- QUIRE SPEICAL HAND- LING.!	1	3	10	100
1P16EK07	PACITATED. I WILL MAKE A NORMAL MLS APPROACH AND LAND-	1	4	10	100
1P16EK08	ING. REQUEST AN AM- INCAPACITATED AND REQUEST AMUBLANCE. WILL USE NORMAL MLS APPROACH AND LAND.	1	4	10	100
1P16FB01	CALL-OUT (RIGHT MAIN GEAR UNSAFE, RECYCLING NOW)	1	3.5	10	100
1P16FB02	CALL-OUT (RIGHT MAIN GEAR STILL UNSAFE)	1	3.2	10	100
1P16FB03	CALL-OUT (GOING AROUND NOW, SET FLAP 15, GEAR UP)	1	3.3	10	100
1P16FB04	CALL-OUT (FLAPS 15)	1	1.0	10	100
1P16FB05	CALL-OUT (BUG + 15)	1	1.4	10	100
1P16FB06	CALL-OUT (GEAR UP, OFF)	1	2	10	100
1P16FB07	RADIO-CALL (ATL TWR NASA 515 ON THE GO WITH GEAR FAILURE)	1	3.5	10	100
1P16FB08	RADIO-COMM (NASA 515 CLIMB STRAIGHT AHEAD TO 3000 AND 170 SAY YOUR INTENTIONS)	1	5.4	10	100

1P16FB09	RADIO-CALL (ATL NASA 1	5.5	10
	515 ROGER 3000 AND		10
	170 REQUEST ILS		10
	RUNWAY 08 WE WILL)		10
1P16FB10	CALL-OUT (SET FLAPS 1	4.5	10
	5 REPORT 3000 REPORT		10
	170 KNOTS)		10
1P16FB11	CALL-OUT (FLAPS 5)	1 .8	10
1P16FB12	CALL-OUT (3000)	1 .8	10
1P16FB13	RADIO-CALL (ATL TWR 1	2.8	10
	NASA 515 LEVEL 3000)		10
1P16FB14	RADIO-COMM (NASA 515 1	7.5	10
	ROGER TURN LEFT HDG		10
	045 CNCT APPCON 127.		10
	25 FOR RADAR TO ILS)		10
1P16FB15	CALL-OUT (170 KNOTS) 1	1.0	10
1P16FB16	RADIO-CALL (ATL NASA 1	5	10
	515 LEFT TO 045 APP		10
	CONTROL 127.25)		10
1P16FB17	CALL-OUT (GET GEAR 1	1.5	10
	UNSAFE CHECKLIST)		10
1P16FB18	CALL-OUT (GEAR LEVER 1	1	10
	OFF)		10
1P16FB19	CALL-OUT (MANUAL 1	1.2	10
	EXTENTIONS NOW)		10
1P16FB20	CALL-OUT (DOWN 3 1	1.2	10
	GREEN)		10
1P16FB21	TEXTEND(GEAR MANUAL 1	2.8	10
	BEFORE FINAL)		10
1P170001	MON RADIO COMM - 1	4	10
	4NASA 515, REDUCE		10
	SPEED TO TWO ZERO		10
	ZERO KNOTS, OVER!		10
1P170002	RADIO COMM -4515, 1	3	10
	ROGER. SLOW TO TWO		10
	ZERO ZERO4		10
1P170003	MON RADIO COMM - 1	3.7	10
	4NASA 515, TURN LEFT		10
	HEADING TWO ONE ZERO		10
	, OVER!		10
1P170004	RADIO COMM -4515, 1	2.8	10
	ROGER. LEFT HEADING		10
	TWO ONE ZERO!		10
1P170005	MON RADIO COMM - 1	3.5	10
	4NASA 515, TURN RT		10
	HEADING TWO SEVEN		10
	ZERO, REDUCE SPEED		10
1P170006	TO ONE EIGHT ZERO. 1	3.5	10
	DESCEND AND MAINTAIN		10
	SIX THOUSAND, OVER!		10
1P170007	RADIO COMM - 4515, 1	4.0	10
	ROGER. RIGHT HEADING		10
	TWO SEVEN ZERO, SLOW		10
	TO ONE EIGHT ZERO,		10
1P170008	MAINTAIN SIX THOU- 1	1.5	10
	SAND!		10
1P200009	CALL OUT -4OFF! 1	0.5	10
1P170009	MON RADIO COMM - 1	3.5	10
	4NASA 515, TURN LEFT		10
	HEADING ONE EIGHT		10

1P170010	ZERO, DESCEND AND MAINTAIN THREE SIX HUNDRED, OVER!	1	1.5	10 10 10	100
1P170011	RADIO COMM - 515, ROGER. LEFT HEADING ONE EIGHT ZERO, MAINTAIN THREE SIX HUNDRED!	1	3.5	10 10 10 10	100
1P170012	MON RADIO COMM -	1	.5	10	100
1P170013	515, REDUCE SPEED TO ONE SIX ZERO KNOTS, OVER!	1	3.5	10 10 10	100
1P170014	RADIO COMM - 515, ROGER. SLOW TO ONE SIX ZERO!	1	3.0	10 10 10	100
1P170015	MON RADIO COMM - 515, YOU ARE SIX MILES FROM THE APPROACH GATE. YOU	1	3.0	10 10 10	100
1P170016	ARE CLEARED FOR AN MLS RUNWAY ZERO EIGHT APPROACH. CON-	1	4.0	10 10 10	100
1P170017	TACT ATLANTA TOWER AFTER CROSSING GATE AT ONE NINER POINT FIVE, OVER!	1	3.0	10 10 10	100
1P170018	RADIO COMM - 515, ROGER. MSL RUNWAY ZERO EIGHT APPROACH, TOWER AFTER GATE ON	1	4.0	10 10 10	100
1P170019	ONE NINER POINT FIVE	1	1.0	10	100
1P170020	MON RADIO COMM - 515, MAINTAIN CURRENT SPEED UNTIL CROSSING APPROACH	1	3.5	10 10 10	100
1P170021	GATE, OVER!	1	.75	10	100
1P170022	RADIO COMM - ATLANTA TOWER, THIS IS NASA 515, OVER APPROACH GATE FOR RUNWAY	1	4.0	10 10 10	100
1P170023	ZERO EIGHT, OVER!	1	1.0	10	100
1P170024	MON RADIO COMM - 515, ATLANTA TOWER, ROGER. CLEAR-	1	3.5	10 10 10	100
1P170025	ED TO LAND RUNWAY ZERO EIGHT. WIND ONE ONE ZERO AT ZERO NINER.!	1	3.5	10 10 10	100
1P170026	CALL OUT - RNWY MLS FREQ ON NAV 1 AND NAV 2!	1	3	10 10 10	100
1P180001	MON RADIO COMM - 515, CONTACT ATLANTA TOWER ON ONE ONE NINER POINT FIVE	1	4	10 10 10	100
1P180002	, OVER.!	1	.5	10	100
1P180003	RADIO COMM - 515, ROGER. ONE ONE NINER POINT FIVE.!	1	2.7	10 10 10	100
1P180004	MON RADIO COMM -	1	4	10	100

	✧NASA 515, CONTACT			10
	TOWER AT THE OUTER			10
	MARKER ON ONE ONE			10
1P180005	NINER POINT FIVE,	1	1.5	10 100
	OVER.!			10
1P180006	RADIO COMM -✧515,	1	4	10 100
	ROGER, TOWER AT			10
	OUTER MARKER ON ONE			10
	ONE NINER POINT FIVE			10
1P200001	INTPHN COMM -✧ADVISE	1	1.8	10 100
	WHEN CHOCKS IN			10
	PLACE!			10
1P200002	MON INTPHN COMM -	1	0.6	10 100
	✧ROGER!			10
1P200003	MON INTPHN COMM -	1	1.1	10 100
	✧CHOCKS IN PLACE!			10
1P200004	INTPHN COMM -✧ROGER!	1	0.6	10 100
1P200005	CALL OUT-✧SHUTDOWN	1	1.2	10 100
	CHECKLIST!			10
1P200006	CALL OUT -✧FUEL!	1	0.7	10 100
1P200007	CALL -✧PUMPS	1	0.8	10 100
	OFF!			10
1P200008	CALL OUT -✧GALLEY	1	0.9	10 100
	POWER!			10
1P200010	CALL OUT- ✧ELECTRI-	1	1	10 100
	CAL!			10
1P200011	CALL OUT -✧ON!	1	0.7	10 100
1P200012	CALL OUT -✧EMERGENCY	1	1.1	10 100
	EXIT LIGHTS!			10
1P200013	CALL OUT -✧SEAT BELT	1	1.2	10 100
	LIGHT!			10
1P200014	CALL OUT -✧WINDOW	1	1	10 100
	HEAT!			10
1P200015	CALL OUT. -✧PITOT	1	1	10 100
	HEAT!			10
1P200016	CALL OUT -✧ANTI-ICE!	1	1.2	10 100
1P200017	CALL OUT -✧SYSTEM B	1	1.5	10 100
	PUMPS!			10
1P200018	CALL OUT -✧AIR COND	1	2.1	10 100
	AND PRESSURIZATION!			10
1P200019	CALL OUT -✧ONE PACK,	1	3	10 100
	GROUND/BLEEDS ON,			10
	GROUND!			10
1P200020	CALL OUT-✧ANTI-COL-	1	1.2	10 100
	LISSION LT!			10
1P200021	CALL OUT-✧START	1	1.2	10 100
	SWITCHES!			10
1P200022	ALL OUT-✧AUTO	1	1	10 100
	BRAKES!			10
1P200023	CALL OUT-✧RADAR AND	1	1.4	10 100
	TRANSPONDER!			10
1P200024	CALL OUT-✧SPEED-	1	1	10 100
	BRAKE!			10
1P200025	CALL OUT-✧FLAPS!	1	0.8	10 100
1P200026	CALL OUT-✧PARKING	1	1	10 100
	BRAKES!			10
1P200027	CALL OUT- ✧START	1	1	10 100
	LEVERS!			10
1P200029	CALL OUT -✧UP!	1	0.6	10 100
1P200030	CALL OUT- ✧DOWN	1	1.2	10 100

		DETENT!						10	
1P200031		CALL OUT - φ RELEASED	1	1				10	100
1P200032		CALL OUT- φ CUTOFF!	1	0.9				10	100
1P200033		CALL OUT - φ OXYGEN	1	1.5				10	100
		REGULATOR!						10	
1P200034		CALL OUT - φ OFF,100!	1	2.5				10	100
1P200035		CALL OUT - φ CHECKLIST	1	2.5				10	100
		COMPLETE DOWN TO						10	
		SECURE!						10	
1P200036		CALL OUT - φ APU!	1	1				10	100
1P200037		CALL OUT - φ BATTERY!	1	1				10	100
1P200038		CALL OUT - φ SHUTDOWN	1	1.5				10	100
		CHECKLIST COMPLETE!						10	
1P200039		CALL OUT - φ CONTINUE	1	1.2				10	100
		CHECKLIST!						10	
1P200040		MON INTPHN COMM -	1	1.5				10	100
		φ TESTING, TESTING,						10	
		OVER!						10	
1P200041		INTPHN COMM -	1	3				10	100
		φ ROGER, HEAR YOU						10	
		LOUD AND CLEAR. ARE						10	
		CHOCKS SET, OVER!						10	
1P200042		MON INTPHN COMM -	1	.8				10	100
		φ CHOCKS IN PLACE !						10	
1Q	01	MON VHF-1L FREQ IND	1	.77	100			10	
			2	4.48	90			10	
			3	4.97	90			10	
			4	4.97	90			10	
1Q	02	SET VHF-1L FREQ-	1	2.90	10	100		10	
		WHOLE NO.	2	3.00	10	100		10	
1Q	03	SET VHF-1L FREQ-	1	1.58	10	100		10	
		FRACTIONS	2	1.97	10	100		10	
1Q	04	ADJ VHF-1L VOLUME	1	1.58	10	100		10	
			2	2.15	10	100		10	
			3	1.58	10	100		10	
			4	2.15	10	100		10	
1Q	05	SET VHF-1L COMM TRR	1	1.45	20	100		10	
		SW TO LEFT	2	1.45	20			10	
1Q	06	SET VHF-1L COMM TFR	1	1.45	20	100		10	
		SW TO RIGHT	2	1.45	20	100		10	
1Q	07	MON VHF-1R FREQ IND	1	.77	100			10	
			2	3.64	90			10	
			3	4.51	90			10	
			4	5.94	90			10	
1Q	08	SET VHF-1R FREQ-	1	2.05	10	100		10	A
		WHOLE NUMBERS	2	2.93	10	100		10	
			3	2.05	10	100		10	AC
			4	2.97	10	100		10	AC
1Q	09	SET VHF-1R FREQ-	1	1.58	10	100		10	
		FRACTIONS	2	1.97	10	100		10	AC
1Q	10	ADJ VHF-1R VOLUME	1	1.58	0	100		10	
			2	2.18	50	100		10	
			3	1.58	0	100		10	
			4	2.18	50	100		10	
1Q	11	SET COMM 1 MIC SEL	1	2.71	100	100		10	A
		SW TO VHF-1	2	2.80	100	100		10	AC
1Q	12	SET COMM 1 VHF-1	1	2.21	100	100		10	A
		COMM RECVR SW TO ON	2	2.34	100	100		10	AC
1Q	13	SET COMM 1 VHF-1	1	2.21	100	100		10	
		COMM RECVR SW TO OFF	2	2.34	100	100		10	

1Q	14 ACT COMM 1 PTT SW	1	1.40	20	100	10	
		2	1.39	20	100	10	
		3	5.00	5	100	10	
		4	12.00	3	100	10	
1Q	15 COMM VIA VHF-1	1	5			10	
		2	12			10	
		3	1.7			10	
		4	7			10	
1Q	16 MON VHF-1 COMM AUDIO	1	12			10	
		2	7			10	
		3	6			10	
		4	3			10	
1Q	17 SET COMM 2 VHF-1	1	2.29	100	100	10	
	COMM RECV SW TO ON	2	2.27	100	100	10	
1Q	18 SET COMM 2 VHF-1	1	2.29	100	100	10	
	COMM RECV SW TO OFF	2	2.27	100	100	10	
1Q	19 SET COMM 2 MIC SEL	1	2.79	100	100	10	
	SW TO VHF-1	2	2.71	100	100	10	
1Q	20 SET COMM 3 VHF-1	1	2.46	100	100	10	
	COMM RECV SW TO ON	2	2.45	100	100	10	
1Q	21 SET COMM 3 VHF-1	1	2.46	100	100	10	
	COMM RECV SW TO OFF	2	2.45	100	100	10	
1Q	22 SET COMM 3 MIC SEL	1	2.97	100	100	10	
	SW TO VHF-1					10	
1Q	23 ACT COMM 1 PUSH-TO-TALK SW	1	1.7	100		10	
		2	3.5	100		10	
1Q	24 ACTUATE PUSH-TO-TALK SW ON CONTROL HAND-GRIP	1	7		100	10	
		2	1.7		100	10	
		3	3.5		100	10	
		4	3		100	10	
1Q	28 COMM VIA VHF-1	1	3.5			10	
		2	3			10	
1Q	30 MON VHF-1 COMM AUDIO	1	5			10	
		2	4			10	
		3	24			10	
1R	01 MON VHF-2L FREQ IND	1	.76	100		10	
		2	4.55	90		10	
		3	4.51	90		10	
1R	02 SET VHF-2L FREQ WHOLE NUMBERS	1	2.97	10	100	10	
		2	2.93	10	100	10	
1R	03 SET VHF-2L FREQ FRACTIONS	1	1.58	10	100	10	
		2	1.58	10	100	10	
		3	1.97	10	100	10	
1R	04 ADJ VHF-2L VOLUME	1	1.58		100	10	
		2	2.97	50	100	10	
		3	1.58		100	10	
		4	2.97	50	100	10	
1R	05 SET VHF-2 COMM TFR SW TO LEFT	1	1.47	20	100	10	
		2	1.47	20	100	10	
1R	06 SET VHF-2 COMM TFR SW TO RIGHT	1	1.47	20	100	10	
		2	1.47	20	100	10	
		3	1.97	20	100	10	
1R	07 MON VHF-2R FREQ IND	1	.77	100		10	
		2	4.58	80		10	
		3	4.48	80		10	
1R	08 SET VHF-2R FREQ-WHOLE NO.S	1	2.03	10	100	10	
		2	3.00	10	100	10	
		3	2.03	10	100	10	
		4	2.90	10	100	10	
1R	09 SET VHF-2R FREQ-	1	1.58	10	100	10	

A
ACA
AC
A
AC

A

		FRACTIONS	2	1.58	10	100	10
			3	1.97	10	100	10
1R	10	ADJ VHF-2R VOLUME	1	1.58		100	10
			2	3.00	50	100	10
			3	1.58		100	10
			4	3.00	50	100	10
1R	11	SET COMM 2 MIC SEL	1	2.79	100	100	10
		SW TO VHF-2	2	2.71	100	100	10
1R	12	SET COMM 2 VHF-2	1	1.43	100	100	10
		COMM RECVR SW TO ON	2	1.43	100	100	10
1R	13	SET COMM 2 VHF-2	1	1.43	100	100	10
		COMM RECVR SW TO OFF	2	1.43	100	100	10
1R	14	ACT COMM 2 PTT SW	1	1.41	20		10
			2	1.41	20		10
			3	5.50	5		10
			4	3.50	10		10
1R	15	COMM VIA VHF-2	1	3.7			10
			2	5.5			10
			3	3.5			10
			4	4			10
1R	16	MON VHF-2 COMM AUDIO	1	5.5			10
			2	3.5			10
			3	3.2			10
			4	5			10
1R	17	SET COMM 1 VHF-2	1	1.42	100	100	10
		COMM RECVR SW TO ON	2	1.42	100	100	10
1R	18	SET COMM 1 VHF-2	1	1.42	100	100	10
		COMM RECVR SW TO OFF	2	1.42	100	100	10
1R	19	SET COMM 1 MIC SEL	1	2.71	100	100	10
		SW TO VHF-2	2	2.80	100	100	10
1R	20	SET COMM 3 VHF-2	1	1.43	100	100	10
		COMM RECVR SW TO ON	2	1.43	100	100	10
1R	21	SET COMM 3 VHF-2	1	1.43	100	100	10
		COMM RECVR SW TO OFF	2	1.43	100	100	10
1R	22	SET COMM 3 MIC SEL	1	2.97	100	100	10
		SW TO VHF-2					10
1R	23	ACT PUSH-TO-TALK SW	1	3.7		100	10
		ON CONTROL HANDGRIP	2	4.8		100	10
			3	2.5		100	10
			4	1.5		100	10
1R	24	ACT PUSH-TO-TALK SW	1	1.7		100	10
		ON CONTROL HANDGRIP	2	2.3		100	10
			3	3.1		100	10
			4	4		100	10
1R	25	ACT PUSH-TO-TALK SW	1	6.8		100	10
		ON CONTROL HANDGRIP	2	4.4		100	10
			3	3		100	10
			4	6		100	10
1R	26	ACT PUSH-TO-TALK SW	1	4.2		100	10
		ON CONTROL HANDGRIP	2	5		100	10
			3	2.7		100	10
			4	7.5		100	10
1R	27	ACT COMM 2 PUSH-TO-	1	4.6	100		10
		TALK SW	2	1.7	100		10
			3	4.2	100		10
			4	4	100		10
1R	28	ACT COMM 2 PUSH-TO-	1	4.25	100		10
		TALK SW	2	5	100		10
1R	30	ACT PUSH-TO-TALK SW	1	4.5		100	10
		ON CONTROL HANDGRIP	2	3.3		100	10

A
AC
A
AC

A
AC

A
AC
A

A

		3	4.23				
		4	10				
1R	32 MON VHF-2 COMM AUDIO	1	2.5			100	10
		2	6			100	10
		3	6.8				
		4	7				
1R	33 MON VHF-2 COMM AUDIO	1	9				
		2	6.2				
		3	1.7				
		4	3				
1R	34 MON VHF-2 COMM AUDIO	1	9.5				
		2	4.3				
		3	7.5				
		4	4.5				
1R	35 MON VHF-2 COMM AUDIO	1	8				
		2	10				
		3	30				
		4	16.				
1R	36 COMM VIA VHF-2	1	4.8				
		2	2.5				
		3	1.5				
		4	1.7				
1R	37 COMM VIA VHF-2	1	2.3				
		2	3.1				
		3	4.4				
		4	3				
1R	38 COMM VIA VHF-2	1	6				
		2	4.2				
		3	5				
		4	2.7				
1R	39 COMM VIA VHF-2	1	7.5				
		2	3.1				
		3	4.5				
		4	3.3				
1R	40 COMM VIA VHF-2	1	4				
		2	4.25				
		3	10				
		4	5.5				
1R	41 COMM VIA VHF-2R	1	6.8				
		2	11.				
1R	42 ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	1	11.			100	
1S	01 MON VHF-3L FREQ IND	1	.77				
		2	5.00			100	
		3	5.06			90	
1S	02 SET VHF-3L FREQ- WHOLE NUMBERS	1	3.03			10	
		2	3.09			10	
1S	03 SET VHF-3L FREQ- FRACTIONS	1	1.97			10	
		2	1.97			10	
1S	04 ADJ VHF-3L VOLUME	1	1.97			10	
		2	3.03			50	
		3	1.97			0	
		4	3.03			50	
1S	05 SET VHF-3 COMM TFR SW TO LEFT	1	1.45			50	
		2	1.45			50	
1S	06 SET VHF-3 COMM TFR SW TO RIGHT	1	1.45			50	
		2	1.45			50	
1S	07 MON VHF-3R FREQ IND	1	.77			100	
		2	5.01			90	
		3	5.05			90	

1R

AC

1S	08	SET VHF-3R FREQ WHOLE NO.S	1 2.05 2 3.04 3 2.05 4 3.08	10 10 10 100 10 100	100 100	10 10 10 10	
1S	09	SET VHF-3R FREQ- FRACTIONS FRACTIONS	1 1.97 2 1.97 2 1.97	10 10 100 100	100	10 10 10	
1S	10	ADJ VHF-3R VOLUME	1 2.05 2 3.04 3 2.05 4 3.08	50 50 50 100 50 100	100 100	10 10 10 10	AC
1S	11	SET COMM 3 MIC SEL SW TO VHF-1	1 2.97 2 2.93	100 100 100	100	10 10	A AC
1S	12	ACT COMM 3 PUSH-TO- TALK SW	1 1.41 2 1.42	50 50 100	100	10 10	A AC
1T	01	SET LOUDSPEAKER TO ON	1 2.39 2 2.39	100 100 100	100	10 10	CP4 P
1T	02	SET LOUDSPEAKER TO OFF	1 2.39 2 2.39	100 100 100	100	10 10	
1T	03	ADJUST LOUDSPEAKER VOLUME	1 2.11 2 2.11 3 3.04 4 3.04	100 100 100 100 100 100	100	10 10 10 10	P
2H	01	PRESS ATT CWS MODE SW	1 1.35 2 1.44 3 1.44	20 20 20 100	100 100	10 10 10	P A A
2H	02	MON ATT CWS MODE LT GREEN - ATT CWS ENGAGED	1 1.05	80		10 10 10	A
2H	03	MON ATT CWS MODE LT DARK - ATT CWS DISENGAGED	1 1.05	80		10 10 10	
2H	04	PRESS VEL CWS MODE SW	1 2.09 2 1.35	20 20	100 100	10 10	A A
2H	05	MON VEL CWS MODE LT GREEN - VEL CWS ENG	1 1.34	80		10 10	A
2H	06	MON VEL CWS MODE LT DARK - VEL CWS DIS- ENGAGED	1 1.34	80		10 10 10	
2H	07	PRESS AUTO MODE SW	1 1.42	20	100	10	A
2H	08	MON AUTO MODE LT GREEN - AUTO MODE ENGAGED	1 1.34	80		10 10 10	
2H	09	MON AUTO MODE LT DARK - AUTO MODE DISENGAGED	1 1.34	80		10 10 10	
2H	10	PRESS LAND MODE SW	1 2.13 2 2.13	20 20 100	100	10 10	A
2H	11	MON LAND MODE LT GREEN - LAND MODE ENGAGED	1 1.05	80		10 10 10	
2H	12	MON LAND MODE LT ORANGE - LAND MODE ARMED	1 1.05	80		10 10 10	
2H	13	MON LAND MODE LT DARK - LAND MODE DISENGAGED	1 1.05	80		10 10 10	
2H	14	PRESS TKA SEL MODE SW	1 1.41	20	80	10 10	P
2H	15	MON TKA SEL MODE LT	1 .77	80		10	AP

		GREEN - TKA SEL MODE 2	.78	40		10	
		ENGAGED				10	
2H	16	MON TKA SEL MODE LT	1 .77	80		10	
		ORANGE - TKA SEL				10	
		MODE ARMED				10	
2H	17	MON TKA SEL MODE LT	1 .77	80		10	
		BLUE - TKA SEL MODE				10	
		PRESELECTED				10	
2H	18	MON TKA SEL MODE LT	1 .77	80		10	
		DARK - TKA SEL MODE				10	
		DISENGAGED				10	
2H	19	ROTATE TKA SEL KNOB	1 2.50	10		10	P
2H	20	READ TKA SEL VALUE	1 1.11	20		10	A
		ON DIGITAL INDIC				10	
2H	21	PRESS FPA SEL MODE	1 1.40	20	100	10	AP
		SW				10	
2H	22	MONITOR FPA SEL MODE	1 .77	80		10	AP
		LT GREEN - FPA SEL				10	
		MODE ENGAGED				10	
2H	23	MONITOR FPA SEL MODE	1 .77	80		10	
		LT ORANGE - FPA SEL				10	
		MODE ARMED				10	
2H	24	MONITOR FPA SEL MODE	1 .77	80		10	
		LT BLUE - FPA SEL				10	
		MODE PRESELECTED				10	
2H	25	MONITOR FPA SEL MODE	1 .77	80		10	
		LT DARK - FPA SEL				10	
		MODE DISENGAGED				10	
2H	26	ROTATE FPA SEL KNOB	1 2.45	20	100	10	AP
2H	27	READ FPA SEL VALUE	1 1.08	20		10	AP
		ON DIGITAL INDIC				10	
2H	28	PRESS ALT ENG MODE S	1 1.42	20	10	10	AP
		SW				10	
2H	29	MONITOR ALT ENG MODE	1 .78	20		10	AP
		LT GREEN - ALT ENG				10	
		MODE ENGAGED				10	
2H	30	MON ALT ENG MODE LT	1 .78	20		10	
		ORANGE - ALT ENG				10	
		MODE ARMED				10	
2H	31	MON ALT ENG MODE LT	1 .78	20		10	
		BLUE - ALT ENG MODE				10	
		PRESELECTED				10	
2H	32	MON ALT ENG MODE LT	1 .78	20		10	
		DARK - ALT ENG MODE				10	
		DISENGAGED				10	
2H	33	ROTATE ALT ENG KNOB	1 2.47	20	100	10	AP
2H	34	READ ALT ENG VALUE	1 1.06	80		10	A
		ON DIGITAL INDIC				10	
2H	35	PRESS HOR PATH MODE	1 1.37	20	100	10	A
		SW	2 2.15	20	100	10	A
			3 1.72	20	100	10	A
2H	36	MON HOR PATH MODE LT	1 .78	80		10	
		GREEN - HOR PATH	2 .78	50		10	
		MODE ENGAGED				10	
2H	37	MON HOR PATH MODE LT	1 .78	80		10	
		ORANGE - HOR PATH				10	
		MODE ARMED				10	
2H	38	MON HOR PATH MODE LT	1 .78	80		10	
		DARK - HOR PATH MODE	2 .78	40		10	
		DISENGAGED				10	

2H	39	PRESS VERT PATH MODE 1	1.36	20	100	10	A
		SW				10	
2H	40	MON VERT PATH MODE L 1	.78	80		10	
		GREEN - VERT PATH				10	
		MODE ENGAGED				10	
2H	41	MON VERT PATH MODE L 1	.78	80		10	
		ORANGE - VERT PATH				10	
		MODE ARMED				10	
2H	42	MON VERT PATH MODE 1	.78	80		10	
		LT DARK - VERT PATH				10	
		MODE DISENGAGED				10	
2H	43	PRESS CAS ENG MODE 1	.78	20	100	10	
		SW				10	
2H	44	MON CAS ENG MODE 1	.78	80		10	A
		LT GREEN - CAS				10	
		MODE ENGAGED				10	
2H	45	MON CAS ENG MODE 1	.78	80		10	
		LT BLUE - CAS ENG				10	
		MODE PRESELECTED				10	
2H	46	MON CAS ENG MODE 1	.78	80		10	
		LT DARK - CAS ENG				10	
		MODE DISENGAGED				10	
2H	47	ROTATE CAS ENG KNOB 1	2.45	20		10	A
2H	48	READ CAS ENG VALUE 1	1.04	100		10	A
		ON DIGITAL INDIC				10	
2H	49	PRESS TIME PATH MODE 1	1.35	20	80	10	A
		SW				10	
2H	50	MON TIME PATH MODE 1	.78	80		10	
		LT GREEN - TIME				10	
		PATH MODE ENGAGED				10	
2H	51	MON TIME PATH MODE 1	.78	80		10	
		SW DARK - TIME PATH				10	
		MODE DISENGAGED				10	
2H	52	ACT LEFT AGCS LIGHTS 1	2	20	100	10	
		TEST SW				10	
2H	53	MON AGCS PANEL LTS 1	2	100		10	
		TEST				10	
2H	54	ACT RIGHT AGCS 1	2	20	100	10	
		LIGHTS TEST SW				10	
2J	01	MON ROLL ATT INDIC 1	2.02	100		10	P
		2	10	5		5	
		3	30	5		5	
		4	180	5		5	
2J	02	MON PITCH ATTITUDE 1	1.12	100		10	P
		INDIC 2	10	10		10	
		3	30	10		10	
		4	180	10		10	
2J	03	MONITOR ALTITUDE 1	.78	100		10	P
		DIGITAL CALLOUT				10	
2J	04	MON FLT PATH ACCEL 1	2.19	100		10	P
		INDIC 2	10	5		5	
		3	30	5		5	
		4	60	5		5	
2J	05	MON FLT PATH ANGLE 1	2.19	100		10	
		INDIC 2	10	20		15	
		3	30	20		15	
		4	120	20		15	
2J	06	MON PITCH FLT DIREC 1	2.19	100		10	
2J	07	MON ROLL FLT DIREC 1	2.19	100		10	
2J	08	MON ACCEL COMMAND 1	2.19	100		10	

2J	09 MON FLT PATH ANGLE INDIC	1	2.19	100		10	
		2	60	20		15	
		3	26	40		40	
2J	10 MON FLT PATH COMMAND TO NEXT WPT	1	2.19	100		10	
2J	11 MON FLT PATH COMMAND TO DESTINATION IN 30 SECONDS	1	2.19	100		10	
2J	12 MON WAYPOINT IDENTIS	1	2.19	100		10	
2J	13 MON ILS BOX INDIC	1	2.19	100		10	
		2	10	5		5	
		3	30	5		5	
		4	60	5		5	
2J	14 MON ILS CROSS INDIC	1	2.19	100		10	
		2	10	5		25	
		3	30	5		25	
		4	60	5		25	
2J	15 MON TV VIDEO	1	2.19	100		10	
		2	30	10		10	
2J	16 ACT EADI AUTO SW	1	2.13	100	100	10	AP
		2	2.35	100	100	10	P
2J	17 SEL MAN EADI PITCH REF MODE/MON SW LT ON					10	
						10	
2J	18 ROTATE PITCH REF KNOB TO SELECT PITCH	1	2.05	100	100	10	AP
						10	
2J	19 MON PITCH REF INDIC	1	1.12	100		10	AP
		2	10	5		5	
		3	30	5		5	
		4	180	5		5	
2J	20 ROTATE DH KNOB TO SELECT DH VALUE	1	1.11	10	100	10	AP
		2	2.44	10	100	10	
2J	21 MON DH INDIC	1	1.11	90		10	
		2	2.44	90		10	
2J	22 MON FLASHING CENTER DOT ON EADI	1	2.27	100		10	
		2	30	10		10	
2J	23 ACTUATE DH TEST SW	1	2.27	100	100	10	
2J	24 MON 100 FT INDIC ON EADI	1	2.27	100		10	
		2	3	10		10	
2J	25 SELECT LAND MODE	1	2.67	100	100	10	AP
		2	2.67	100	100	10	
2J	26 SELECT CRUISE MODE	1	2.67	100	100	10	
		2	1.35	100	100	10	
2J	27 SELECT TEST MODE	1	2.67	100	100	10	
2J	28 MON EADI TEST PAT	1	2.67	100		10	
2J	29 SELECT SPD ERR OPTIO	1	1.35	100	100	10	
		2	2.15	100	100	10	
2J	30 MON SPD ERR BAR	1	10	5		5	
		2	30	5		5	
		3	60	5		5	
		4		5		5	
2J	31 SEL ILS OPTION	1	1.35	100	100	10	
		2	2.15	100	100	10	
		3	2.15	100	100	10	
2J	32 SEL TV OPTION	1	2.15	100	100	10	AP
		2	1.35	100	100	10	
2J	33 SEL FPT DIR OPTION	1	2.15	100	100	10	
		2	1.35	100	100	10	
2J	34 SELECT V-NAV OPTION	1	1.32	100	100	10	AP

2J	35 SELECT RUNWAY OPTION	2	2.15	100	100	10	
		1	1.36	100	100	10	AP
		2	2.15	100	100	10	
2J	36 ADJ EADI BRIGHTNESS	1	2	100	100	10	
2J	37 ADJ EADI CONTRAST	1	2	100	100	10	
2J	38 MONITOR LOCALIZER INDICATOR	1	5	20		20	
		2	10	10		10	
		3	30	10		10	
		4	60	10		10	
2J	39 MON GLIDE SLOPE ATT INDIC	1	5	10		10	
		2	10	10		10	
		3	30	10		10	
		4	60	10		10	
2J	40 MON EADI RNWY	1	10	5		5	
		2	30	5		5	
		3	60	5		5	
		4	180	5		5	
2J	41 MON EADI DRIFT INDIC	1	10	5		5	
		2	30	5		5	
		3	60	5		5	
		4	180	5		5	
2J	42 MON EADI	1	5	25		30	
		2	10	25		30	
		3	30	25		30	
		4	60	25		30	
2J	43 MON EADI	1	90	25		30	
		2	120	25		30	
		3	15	25		30	
		4	20	25		30	
2J	44 MON EADI RNWY	1	26	25		15	
2J	45 MON EADI RADAR ALT	1	26	10		10	
2K	01 SEL TRACK UP OPTION	1	2.64	100	100	10	AP
		2	1.97	100	100	10	
		3	2.00	100	100	10	AC
		4	2.67	100	100	10	AC
2K	02 SEL NORTH UP OPTION	1	2.64	100	100	10	
		2	1.97	100	100	10	
		3	2.00	100	100	10	
		4	2.67	100	100	10	
2K	03 SEL TEST OPTION	1	2.64	100	100	10	
		2	1.97	100	100	10	
		3	2.00	100	100	10	
		4	2.67	100	100	10	
2K	04 MON MFD TEST PATT	1	3	100		10	
2K	05 SEL 1 NM MAP SCALE	1	2.65	100	100	10	AP
		2	1.92	100	100	10	AP
		3	1.96	100	100	10	AC
		4	2.68	100	100	10	AC
2K	06 SEL 2 NM MAP SCALE	1	2.65	100	100	10	
		2	1.92	100	100	10	
		3	1.96	100	100	10	
		4	2.68	100	100	10	
2K	07 SEL 4 NM MAP SCALE	1	2.65	100	100	10	
		2	1.92	100	100	10	
		3	1.96	100	100	10	
		4	2.68	100	100	10	
2K	08 SEL 8 NM MAP SCALE	1	2.65	100	100	10	
		2	1.92	100	100	10	
		3	1.96	100	100	10	
		4	2.68	100	100	10	

2K	09 SEL 16 NM MAP SCALE	1	2.65	100	100	10	
		2	1.92	100	100	10	
		3	1.96	100	100	10	
		4	2.68	100	100	10	
2K	10 SEL 32 NM MAP SCALE	1	2.68	100	100	10	AP
		2	1.92	100	100	10	
		3	1.96	100	100	10	
		4	2.68	100	100	10	
2K	11 MON MAP SCALE CALLOU	1	.83	100		10	AP
2K	12 MON 1 NM MAP VIDEO	1	2.27	100		10	AP
2K	13 MON 2 NM MAP VIDEO	1	2.27	100		10	
2K	14 MON EHSI DISPLAY	1	2.27	100		10	
		2	10	25		10	
		3	30	25		10	
		4	180	25		10	
2K	15 MON EHSI DISPLAY	1	2.27	100		10	
		2	60	25		25	
		3	90	25		30	
		4	120	25		30	
2K	16 MON EHSI DISPLAY	1	2.27	100		10	
		2	5	25		30	
		3	15	25		30	
		4	20	25		30	
2K	17 MON EHSI DISPLAY	1	2.2	40		10	
		2	17	50		10	
2K	18 SEL NAV AIDES OPTION	1	2.07	100	100	10	AP
		2	2.13	100	100	10	AC
		3	1.38	100	100	10	
		4	1.38	100	100	10	
2K	19 SEL TERRAINE OPTION	1	1.38	100	100	10	AC
		2	2.07	100	100	10	
		3	1.38	100	100	10	
		4	2.13	100	100	10	
2K	20 SEL AIRPORTS OPTION	1	1.37	100	100	10	
		2	2.07	100	100	10	
		3	1.38	100	100	10	
		4	2.13	100	100	10	
2K	21 SEL WPT ALT OPTION	1	1.46	100	100	10	AP
		2	2.07	100	100	10	
		3	1.38	100	100	10	
		4	2.13	100	100	10	
2K	22 SEL GRP OPTION	1	1.37	100	100	10	AP
		2	1.33	100	100	10	AC
		3	2.07	100	100	10	
		4	2.13	100	100	10	
2K	23 SEL T NAV OPTION	1	2.13	100	100	10	AC
		2	1.38	100	100	10	
		3	2.07	100	100	10	
		4	2.13	100	100	10	
2K	24 SEL ALT RANGE OPTION	1	1.38	100	100	10	
		2	2.07	100	100	10	
		3	2.13	100	100	10	
		4	1.38	100	100	10	
2K	25 SEL TREND VECT OPTION	1	1.38	100	100	10	
		2	2.07	100	100	10	
		3	2.13	100	100	10	
		4	1.38	100	100	10	
2K	26 MON NV AIDES SYMBOLS					10	
2K	27 MON TERRAINE SYMBOLS					10	
2K	28 MON AIRPORT SYMBOLS					10	

2K	29	MON WAYPOINT ALT					10
		WITH NAV AIDES SYM					10
2K	30	MON GEO REF PT SYM					10
2K	31	MON TIME BOX AND	1	.001	100		10
		FUTURE PTS SYMBOLS					10
2K	32	MON ALT/RNG SYMBOLS	1	2	50		10
			2	10	10		10
			3	30	10		10
			4	60	10		10
2K	33	MON CURVED TREND	1	10	10		20
		VECTOR SYMBOLS	2	30	10		20
			3	180	10		20
			4	60	10		20
2K	34	DESELECT NAV AIDES	1	1.38	100	100	10
		OPTION	2	2.07	100	100	10
			3	1.38	100	100	10
			4	2.13	100	100	10
2K	35	DESELECT TERRAIN	1	1.38	100	100	10
		OPTION	2	2.07	100	100	10
			3	1.38	100	100	10
			4	2.13	100	100	10
2K	36	DESELECT AIRPORTS	1	1.38	100	100	10
		OPTION	2	2.07	100	100	10
			3	1.38	100	100	10
			4	2.13	100	100	10
2K	37	DESELECT WPT ALT	1	1.38	100	100	10
		OPTION	2	2.07	100	100	10
			3	1.38	100	100	10
			4	2.13	100	100	10
2K	38	DESELECT GRP OPTION	1	1.38	100	100	10
			2	2.07	100	100	10
			3	1.38	100	100	10
			4	2.13	100	100	10
2K	39	DESELECT T NAV	1	1.38	100	100	10
		OPTION	2	2.07	100	100	10
2K	40	DESELECT ALT RANGE	1	1.38	100	100	10
		OPTION	2	2.07	100	100	10
			3	1.38	100	100	10
			4	2.13	100	100	10
2K	41	DESELECT TREND VEC	1	1.38	100	100	10
		OPTION	2	2.07	100	100	10
			3	1.38	100	100	10
			4	2.13	100	100	10
2K	42	MON HOLDING PATTERN					10
		SYMBOL					10
2K	43	MON ADIZ BDRY SYM					10
2K	44	MON FIR BDRY SYMBOL					10
2K	45	MON OFFSET FLT PATH					10
		SYMBOLS					10
2K	46	MON STRAIGHT TREND	1	10	10		10
		VECTOR SYMBOL	2	30	10		10
			3	180	10		10
			4	60	5		5
2K	47	MON TRACK ANGLE SYM	1	10	10		10
			2	2.2	50		10
2K	48	MON AGCS MODE INDIC	1	.83	100		10
2K	49	MON GROUND SPEED INC	1	.79	100		10
2K	50	MON NAV MODE INDIC	1	.79	100		10
2K	51	MON WIND DIREC/VEL	1	.79	100		10
		INDIC					10

AP
AP

2K	52	MON FTL PATH SYMBOL	1	10	10		10	
2K	53	MON HDG POINTER AND TAPE	1	2.03	100		10	AP
2K	54	ADJ MFD BRIGHTNESS	1	2	100	100	10	
2K	55	ADJ MFD CONTRAST	1	2	100	100	10	
2K	56	MON MFD FOR ATC SITUATION DISP	1	5	100		10	
			2	10	50		10	
			3	15			10	
			4	30	15		10	
2K	57	MON MFD FOR ATC SITUATION DISP	1	45	10		10	
			2	60	10		10	
			3	90	10		10	
			4	120	10		10	
2K	58	MON MFD FOR ATC SITUATION DISP	1	240	10		10	
			2	360	10		10	
			3	540	10		10	
			4	1140	10		10	
2K	59	MON CURVED TREND VECTOR SYMBOLS	1	5	10		10	
			2	10	10		10	
			3	30	10		10	
			4	60	10		10	
2L	01	RESET T/A/M SEL SW	1	2.67	100	100	10	AP
2L	02	ADJ NCDU DIM CONT	1	2.78	100	100	10	AP1
2L	03	MON NCDU ALERT LT ON	1	2.08	100		10	AP
2L	04	MON NCDU ALERT LT	1	2.08	100		10	
2L	05	MON NCDU FAIL LT ON	1	2.08	100		10	
2L	06	MON NCDL FAIL LT OFF	1	2.08	100		10	
2L	07	MON INITILIZE MODE DATA	1	2.34	100		10	AP
			2	2.00	100		10	AP
			3	4	100		10	
2L	08	MON ATC CLR MODE DATA	1	2.34	100		10	
			2	2.08	100		10	AP
2L	09	MON FLT PLN 1 MODE DATA	1	2.34	100		10	
			2	2.08	100		10	AP
2L	10	MON FLT PLN 2 MODE DATA	1	2.34	100		10	
			2	2.08	100		10	
2L	11	MON NAV DATA 1 MODE DATA	1	2.34	100		10	
			2	2.06	100		10	
2L	12	MON NAV DATA 2 MODE DATA	1	2.34	100		10	
			2	2.06	100		10	
2L	13	MON NAV DATA 3 MODE DATA	1	2.34	100		10	
			2	2.06	100		10	
2L	14	MON SEL 1 MODE DATA	1	2.34	100		10	
			2	2.08	100		10	AP
2L	15	MON SEL 2 MODE DATA	1	2.34	100		10	
			2	2.08	100		10	
2L	16	MON LOOK UP 1 STATUS DATA	1	2.34	100		10	
			2	2.08	100		10	AP
			3	7	100		10	
2L	17	MON LOOK-UP 2 ROUTE DATA	1	2.34	100		10	
			2	2.08	100		10	
2L	18	MON LOOK-UP 3 AIRPRT DATA	1	2.34	100		10	
			2	2.08	100		10	
2L	19	MON LINE 8 MESSAGE	1	2.34	100		10	
			2	2.06	100		10	
2L	20	PRESS ENT KEY	1	1.47	100	100	10	AP
			2	1.51	100	100	10	AP
			3	1.35	100	100	10	
2L	21	PRESS EXEC KEY	1	1.42	100	100	10	AP
			2	1.46	100	100	10	AP

		3	1.35	100	100	10	
		4	1.52	100	100	10	AP1
2L	22 PRESS REJ KEY	1	1.53	100	100	10	AP
		2	1.35	100	100	10	
2L	23 PRESS CLR KEY	1	1.53	100	100	10	
		2	1.35	100	100	10	
2L	24 PRESS UP KEY	1	1.50	100	100	10	AP
		2	1.32	100	100	10	
2L	25 PRESS DOWN KEY	1	1.50	100	100	10	AP
		2	1.32	100	100	10	AP
2L	26 PRESS NO.1 KEY	1	1.45	100	100	10	AP
		2	1.41	100	100	10	AP
		3	1.35	100	100	10	
2L	27 PRESS NO.2 KEY	1	1.35	100	100	10	AP
		2	1.48	100	100	10	
2L	28 PRESS NO.3 KEY	1	1.35	100	100	10	AP
		2	1.46	100	100	10	AP
2L	29 PRESS NO.4 KEY	1	1.35	100	100	10	AP
		2	1.46	100	100	10	
2L	30 PRESS NO.5 KEY	1	1.35	100	100	10	
		2	1.46	100	100	10	
2L	31 PRESS NO.6 KEY	1	1.35	100	100	10	AP
		2	1.44	100	100	10	AP
2L	32 PRESS NO.7 KEY	1	1.35	100	100	10	AP
		2	1.46	100	100	10	
2L	33 PRESS NO.8 KEY	1	1.44	100	100	10	AP
		2	1.35	100	100	10	
2L	34 PRESS NO.9 KEY	1	1.35	100	100	10	
		2	1.46	100	100	10	
2L	35 PRESS NO.0 KEY	1	1.35	100	100	10	
		2	1.46	100	100	10	
2L	36 PRESS (DECIMAL PT) KEY	1	1.35	100	100	10	
		2	1.46	100	100	10	
2L	37 PRESS A/WPT KEY	1	1.35	100	100	10	
		2	1.46	100	100	10	
2L	38 PRESS B/ANY KEY	1	1.35	100	100	10	
		2	1.46	100	100	10	
2L	39 PRESS C KEY	1	1.38	100	100	10	AP
		2	1.46	100	100	10	
2L	40 PRESS D KEY	1	1.35	100	100	10	AP
		2	1.32	100	100	10	AP
		3	1.46	100	100	10	
2L	41 PRESS E KEY	1	1.35	100	100	10	
		2	1.46	100	100	10	
2L	42 PRESS F/F-L KEY	1	1.35	100	100	10	
		2	1.46	100	100	10	
2L	43 PRESS G/ALT KEY	1	1.35	100	100	10	
		2	1.46	100	100	10	
2L	44 PRESS H/RTE KEY	1	1.48	100	100	10	AP
		2	1.35	100	100	10	
2L	45 PRESS I/RWY KEY	1	1.45	100	100	10	AP
		2	1.35	100	100	10	
2L	46 PRESS J KEY	1	1.35	100	100	10	
		2	1.46	100	100	10	
2L	47 PRESS K KEY	1	1.35	100	100	10	
		2	1.46	100	100	10	
2L	48 PRESS L KEY	1	1.35	100	100	10	
		2	1.46	100	100	10	
2L	49 PRESS M/GS KEY	1	1.47	100	100	10	AP
		2	1.35	100	100	10	

2L	50	PRESS N KEY	1	1.41	100	100	10	AP
			2	1.35	100	100	10	
2L	51	PRESS O/SID KEY	1	1.35	100	100	10	AP
			2	1.46	100	100	10	
2L	52	PRESS P/STAR KEY	1	1.35	100	100	10	AP
			2	1.46	100	100	10	
2L	53	PRESS Q KEY	1	1.35	100	100	10	
			2	1.46	100	100	10	
2L	54	PRESS R KEY	1	1.35	100	100	10	
			2	1.46	100	100	10	
2L	55	PRESS S KEY	1	1.35	100	100	10	
			2	1.46	100	100	10	
2L	56	PRESS T/PTA KEY	1	1.35	100	100	10	
			2	1.46	100	100	10	
2L	57	PRESS U KEY	1	1.36	100	100	10	AP
			2	1.46	100	100	10	
2L	58	PRESS V KEY	1	1.35	100	100	10	
			2	1.46	100	100	10	
2L	59	PRESS W KEY	1	1.35	100	100	10	
			2	1.46	100	100	10	
2L	60	PRESS X KEY	1	1.35	100	100	10	
			2	1.46	100	100	10	
2L	61	PRESS Y KEY	1	1.35	100	100	10	
			2	1.46	100	100	10	
2L	62	PRESS Z KEY	1	1.35	100	100	10	
			2	1.46	100	100	10	
2L	63	PRESS INIT KEY	1	1.48	100	100	10	AP
			2	1.35	100	100	10	
2L	64	PRESS ATC CLR KEY	1	2.03	100	100	10	AP
			2	1.35	100	100	10	
			3	1.46	100	100	10	
2L	65	PRESS FLT PLN KEY	1	2.03	100	100	10	AP
			2	1.40	100	100	10	AP
			3	1.35	100	100	10	
2L	66	PRESS NAV DATA KEY	1	2.03	100	100	10	
			2	1.46	100	100	10	
			3	1.35	100	100	10	
2L	67	PRESS SEL KEY	1	2.03	100	100	10	AP
			2	1.39	100	100	10	AP
			3	1.46	100	100	10	
2L	68	PRESS LOOK-UP KEY	1	2.03	100	100	10	AP
			2	1.39	100	100	10	AP
			3	1.46	100	100	10	
2L	69	MON NCDU TEST FORMAT	1	.5	100		10	
3A	01	MONITOR INDICATED AIRSPEED INDIC	1	.6	100		10	
			2	2.05	80		10	
			3	2.37	80		10	
			4	2.11	80		10	
3A	02	SET V1 BUG	1	2.57	20	100	10	CP
			2	5.00	20	100	10	P
			3	2.57	20	100	10	
3A	03	MON IAS POINTER PASSING V1 BUG	1	.2	100		10	
			2	2.05	100		10	
			3	2.37	100		10	
			4	2.11	100		10	
3A	04	MON V1 BUG SETTING	1	2.57	80		10	
			2	5.00	80		10	
3A	05	SET V-REF BUG	1	5.00	20	100	10	
			2	2.57	20	100	10	
			3	2.57	20	100	10	

3A	06 MON IAS POINTER	1	.2	100				10	
	PASSING V-REF BUG	2	2.05	100				10	
		3	2.37	100				10	
		4	2.11	100				10	
3A	07 MON V-REF BUG	1	5	80				10	
	SETTING	2	2.57	80				10	
		3	2.37	80				10	
3A	08 MON IAS POINTER	1	.2	100				10	
	OVERLAPPING V-MO	2	2.05	100				10	
	INDIC	3	2.37	100				10	
		4	2.11	100				10	
3A	09 MON IAS 80 KNOTS	1	2.05	100				10	
		2	2.11	100				10	
		3	2.37	100				10	
3A	10 MONITOR AIRSPEED	1	10	10				10	
	INDIC	2	5	10				10	
		3	30	10				10	
		4	60	10				10	
3A	11 MONITOR AIRSPEED	1	300	10				10	
	INDIC	2	120	10				10	
		3	90	10				10	
		4	20	10				10	
3A	12 F.O. CHECK CAPTIS	1	3.	100				10	
	V-REF BUG SETTING							10	
3A	13 CAPT CHECK F.O. AS	1	3.	100				10	
	V-REF BUG SETTING							10	
3A	14 MON AIRSPEED INDIC	1	285	10				10	
		2	180	10				10	
		3	15	10				10	
		4	20	10				10	
3F	01 MON MACH NO INDIC	1	2	100				10	
		2	2.05	100				10	
		3	2.37	10				10	
		4	2.11	100				10	
3F	02 MON MACH AIRSPEED	1	2.00					10	100
	WARNING CLACKER							10	
3F	03 ACTUATE MACH AIRSPD	1	2.69	100	100			10	
	TEST SW	2	2.69	100		100		10	
3H	01 SET ALTIMETER SW	1	2.10	100	100			10	
	TO ON	2	2.10	100		100		10	
3H	02 MON CORR BARO ALT	1	.6	100				10	
	INDIC	2	2.05	100				10	
		3	2.13	100				10	
		4	2.37	100				10	
3H	03 SET ALTIMETER BARO	1	5.00	10	100			10	
	SETTING CONTROL	2	2.65	10		100		10	
		3	2.65	10	100			10	
		4	5.00	10		100		10	
3H	04 MONITOR ALTIMETER	1	.77	90				10	
	BARO SETTING INDIC	2	2.37	90				10	
		3	2.65	90				10	
		4	5.00	90				10	
3H	05 F.O. CHECK CAPTAS	1	3.00	100				10	
	ALTIMETER BARO SET							10	
	AND INDICATED ALTI-							10	
	TUDE							10	
3H	06 MON ALTIMETER	1	7	50				10	
		2	10	10				10	
		3	30	10				10	
		4	60	10				10	

3H	07	MON ALTIMETER	1	5	10				10		
3J	01	MON RADIO ALT	1	2	100				10		P
		ALTITUDE INDIC	2	2.23	100				10		CP
3J	02	MON RADIO ALTIMETER	1	2.15	100				10		
		WARNING FLAG IN VIEW	2	2.23	100				10		
3J	03	MON RADIO ALTIMETER	1	2.15	100				10		
		WARNING FLAG OUT OF VIEW	2	2.23	100				10		
3J	04	ADJUST RADIO ALTI-	1	2.65	100	100			10		CP
		METER MIN DECISION	2	2.68	100		100		10		P
		ALT CURSOR CONT							10		
3J	05	MON RADIO ALTIMETER	1	2.15	100				10		
		MIN DECISION ALT	2	2.23	100				10		
		CURSOR							10		
3J	06	ACTUATOR RADIO ALT	1	1.45	100	100			10		CP
		TEST SW	2	2.03	100	100			10		P
			3	1.45	100		100		10		P
			4	2.02	100		100		10		P
3J	07	MON RADIO ALT TEST	1	2.15	100				10		
		ALT INDIC	2	2.23	100				10		
3J	08	MON RADIO ALT MDA	1	2.15	100				10		
		LT CH	2	2.23	100				10		
3J	09	MON RADIO ALT MDA	1	2.15	100				10		
		LT OFF	2	2.23	100				10		
3K	01	SET NEW ALTITUDE ON	1	5	10	100			10		
		ALTITUDE ALERT PNL	2	2.72	10		100		10		P
3K	02	MON ALT ALERT ALT	1	.76	90				10		P
		INDIC	2	2.72	90				10		
			3	5.00	90				10		
3K	03	SET ALT ALERT BARO	1	2.72	10	100			10		
			2	5.00	10	100			10		
3K	04	MON ALT ALERT BARO	1	.76	90				10		
		SET INDIC	2	2.72	90				10		
			3	5.00	90				10		
3K	05	MON ALT ALERT LT ON	1	2.16	100				10		AC
3K	06	MON ALT ALERT LT OFF	1	2.16	100				10		
3K	07	MON ALT ALERT ALARM	1						10	100	
3L	01	MON VERTICAL SPEED	1	2.12	100				10		
		INDIC	2	2.03	100				10		
			3	2.31	100				10		
			4	2.24	100				10		CP
3L	02	MON VERTICAL SPEED	1	10	10				10		
		INDIC	2	5	10				10		
			3	30	10				10		
			4	60	10				10		
3L	03	MON VERTICAL SPEED	1	300	10				10		
		INDIC	2	120	10				10		
			3	90	10				10		
			4	60	10				10		
3L	04	MON IVSI INDIC	1	285	10				10		
			2	20	10				10		
			3	180	10				10		
			4	15	10				10		
3L	05	MON IVSI	1	.6	100				10		
3N	01	WIND AND SET CLOCK	1	2.50	20		100		10		
			2	2.50	20	100			10		
3N	02	MONITOR CLOCK	1	2.10	80				10		
			2	2.16	80				10		
			3	2.24	80				10		C
			4	2.19	80				10		CP

3N	03	START ELAPSED TIME	1	2.10	5	50	5
		INDIC					5
3N	04	RESET ELAPSED TIME	1	2.10	5	50	5
		INDIC					5
3P	01	ACTUATE GYRO CAGING	1	2.70	100	100	10
		SW					10
3P	02	SET GYRO PITCH TRIM	1	2.22	100	100	10
3P	03	MON STDBY HORIZON	1	2.22	100		10
		INDIC PWR FAIL FLAG					10
3P	04	MON AIRPLANE REF	1	2.22	100		10
3P	05	MONITOR BANK ANGLE	1	2.22	100		10
		INDIC					10
3P	06	MONITOR PITCH ANGLE	1	2.22	100		10
		INDIC					10
3R	10	MON PITCH ATTITUDE	1	2.05	100		10
		INDIC ON FDI	2	.211	100		10
			3	2.58	100		10
			4	10	10		10
3R	11	MON BANK ATTITUDE	1	2.05	100		10
		INDIC ON FDI	2	2.11	100		10
			3	2.58	100		10
3R	12	MON DECISION HGT LT	1	2.05	50		10
		ON FDI	2	.211	50		10
			3	2.58	50		10
3R	13	MON DECISION HGT LT	1	2.05	50		10
		OFF ON FDI	2	2.11	50		10
			3	2.58	50		10
3R	14	MON COMMAND BAR	1	2.05	100		10
		ATTITUDE INDIC ON	2	2.11	100		10
		FDI	3	2.58	100		10
3R	15	MON RED FLAG IN	1	2.05	100		10
		VIEW ON FDI	2	2.11	100		10
			3	2.53	100		10
3R	16	MONITOR INDICATION	1	2.21	100		10
		OF DEVIATION FROM	2	3	100		10
		LOCALIZER ON FDI	3	10	15		10
			4	240	15		10
3R	17	MON SLIP INDIC ON	1	2.05	100		10
		FDI	2	2.11	100		10
			3	2.58	100		10
3R	18	MON FD FLAG OUT	1	2.05	100		10
		OF VIEW ON FDI	2	2.11	100		10
			3	2.58	100		10
3R	19	MON RUNWAY FLAG IN	1	2.05	100		10
		VIEW ON FDI	2	2.11	100		10
			3	2.58	100		10
3R	20	MON RUNWAY FLAG OUT	1	2.05	100		10
		OF VIEW ON FDI	2	2.11	100		10
			3	2.58	100		10
3R	21	MON RATE OF TURN	1	2.05	100		10
		FLAG ON FDI	2	2.11	100		10
			3	2.58	100		10
3R	22	MONITOR RUNWAY	1	2.05	100		10
		SYMBOL OUT OF VIEW	2	2.11	100		10
		ON FDI	3	2.58	100		10
3R	23	MONITOR ATTITUDE	1	2.05	100		10
		RELATIVE TO RUNWAY	2	2.11	100		10
		SYMBOL ON FDI	3	2.58	100		10
3R	24	ACTUATE FDI PRESS-	1	2.01	100	100	10
		TO-TEST SW	2	1.81	100	100	10

C

CP
P

3R	25	NON FDI TEST INDIC	1	2.05	100		10	
			2	2.11	100		10	
			3	2.58	100		10	
3R	26	MON GLIDE SLOPE	1	2.05	100		10	
		FLAG OUT OF VIEW ON	2	2.11	100		10	
		FDI	3	2.58	100		10	
3R	27	MON GLIDE SLOPE FLAG	1	2.05	100		10	
		IN VIEW ON ADI	2	2.11	100		10	
			3	2.58	100		10	
3R	28	MON GYRO FLAG IN	1	2.05	100		10	
		VIEW ON FDI	2	2.11	100		10	
			3	2.58	100		10	
3R	29	MON GYRO FLAG OUT OF	1	2.05	100		10	
		VIEW ON FDI	2	2.11	100		10	
			3	2.58	100		10	
3R	30	MON GLIDE SLOPE	1	2.05	100		10	
		ATTITUDE INDIC ON	2	2.11	100		10	
		FDI	3	2.58	100		10	
3R	31	MON A/C ATTITUDE	1	2.58	100		10	
		ON FDI	2	2.05	100		10	
			3	2.11	100		10	
			4	10	10		10	
3R	32	SET PITCH TRIM CONT	1	2.71	100	100	10	CP
		ON FDI					10	
3R	33	MON RADIO ALT INDIC	1	2.05	100		10	
		ON FDI	2	2.11	100		10	
			3	2.58	100		10	
3R	34	MON RATE OF TURN	1	2.05	100		10	
		INDIC ON FDI	2	2.11	100		10	
			3	2.58	100		10	
3R	35	MON SPEED POINTER	1	2.05	100		10	
		AND COMMAND INDIC	2	2.11	100		10	
			3	2.58	100		10	
3R	40	MON FD VERT SPD TAPE	1	2.01	100		10	P
3R	41	SET FD PITCH MODE	1	2.92	100	100	10	P
		SEL TO ALT HOLD					10	
3R	42	SET FD PITCH MODE	1	2.92	100	100	10	P
		SEL TO VERT SPEED					10	
		MODE AND ADJUST VERT					10	
		SPEED					10	
3R	43	SET FD MODE SEL TO	1	2.01	100	100	10	
		OFF					10	
3R	44	SET FD MODE SEL TO	1	2.01	100	100	10	
		HDG					10	
3R	45	SET FD MODE SEL TO	1	2.01	100	100	10	
		RAD					10	
3R	46	SET FD MODE SEL TO	1	2.01	100	100	10	
		BB					10	
3R	47	CHECK THAT F.D. MODE	1	1.01	100		10	P
		SEL SW SET TO OFF					10	
3R	48	CHECK THAT F.D.	1	2.25	100		10	CP
		PITCH CONT SET TO	2	.98	100		10	P
		FULL CLOCKWISE					10	
3R	49	SET VHF/NAV SW TO	1	2.53	100	100	10	P
		NORMAL					10	
3R	50	SET VHF/NAV SW TO	1	2.53	100	100	10	
		NO.1					10	
3R	51	SET VHF/NAV SW TO	1	2.53	100	100	10	
		NO.2					10	
3R	52	SET VERT GYRO SEL SW	1	1.46	100	100	10	P

		TO NO.1	2	2.15	100	100	10		P
3R	53	SET VERT GYRO SEL SW	1	1.46	100	100	10		
		TO NO.2	2	2.15	100	100	10		
3R	54	SET COMPUTER SEL SW	1	1.85	100	100	10		P
		TO NO.1	2	2.14	100	100	10		P
			3	2.55	100	100	10		P
3R	55	SET COMPUTER SEL SW	1	1.85	100	100	10		
		TO NO.2	2	2.14	100	100	10		
			3	2.55	100	100	10		
3R	56	MON PITCH ATTITUDE	1	5	10		10		
		INDIC ON FDI	2	30	10		10		
			3	60	10		10		
			4	90	10		10	3R	
3R	57	MON PITCH ATTITUDE	1	120	10		10		
		INDIC ON FDI	2	285	10		10		
			3	20	10		10		
3R	58	MON A/C ATTITUDE	1	10	10		10		
		RELATIVE TO ROLL	2	285	10		10		
		COMMAND ON					10		
		FDI					10	3R	
3R	59	MON INITIAL MOVEMENT	1	2.58	50		10		
		OF ROLL COMMAND					10		
		BAR ON FDI					10		
3R	60	MON INITIAL MOVEMENT	1	2.58	50		10		
		OF GLIDE SLOPE					10		
		COMMAND BAR ON FDI					10		
3R	61	MON INDICATION OF	1	180	50		10		
		DEVIATION FROM	2	5	50		10		
		LOCALIZE AND GLIDE					10		
		SLOPE ON FDI					10		
3R	62	MONITOR LOCALIZER	1	5	20		20		
		INDICATOR ON FDI	2	10	20		20		
			3	30	20		20		
			4	60	20		20		
3R	63	MON GLIDE SLOPE	1	5	20		20		
		ATT INDIC ON FDI	2	10	20		20		
			3	30	20		20		
			4	60	20		20		
3R	64	MON COMMAND BAR	1	5	20		10		
		ATTITUDE INDIC ON	2	10	20		10		
		FDI	3	30	20		10		
			4	60	20		10		
3R	65	MON COMMAND BAR	1	90	20		10		
		ATTITUDE INDIC ON	2	120	20		10		
		FDI	3	300	20		10		
			4		20		10		
3S	01	MONITOR A/C HEADING	1	2.23	100		10		
		RELATIVE TO SELECTED	2	10	10		10		
		HDG ON CI	3	5	10		10		
			4	30	10		10		
3S	02	MON COMPASS FLAG	1	2.23	100		10		
		IN VIEW ON CI	2	.78	100		10		
3S	03	MON COMPASS FLAG OUT	1	2.23	100		10		
		OF VIEW ON CI	2	.78	100		10		
3S	04	MON A/C POSITION	1	2.10	100		10		
		RELATIVE TO SELECTED	2	5.00	100		10		
		COURSE ON CI	3	10	10		10		
			4	240	10		10		
3S	05	MON COURSE PNTR IND	1	2.10	100		10		
		ON CI	2	2.23	100		10		

3S	06	MON L-C WARNING FLAG	1	2.23	100		10
		IN VIEW ON CI	2	.78	100		10
3S	07	MON L-C WARNING FLAG	1	2.23	100		10
		OUT OF VIEW ON CI	2	.78	100		10
3S	08	MON COURSE DIGITAL	1	2.23	90		10
		INDIC ON CI	2	.78	90		10
3S	09	MON GLIDE SLOPE FLAG	1	2.23	100		10
		IN VIEW ON CI	2	.78	100		10
3S	10	MON GLIDE SLOPE FLAG	1	2.23	100		10
		OUT OF VIEW ON CI	2	.78	100		10
3S	11	SET COURSE DIGITS	1	4.92	10	100	10
		AND POINTER ON CI	2	2.87	10	100	10
		USING COURSE CURSOR	3	2.87	10	100	10
		CONT					10
3S	12	SET HEADING CURSOR	1	5	10	100	10
		ON CI USING HDG CUR-	2	4.13	10	100	10
		SOR CONT	3	2.55	10	100	10
			4	2.14	10	100	10
3S	13	MON DEVIATION FROM	1	.78	100		10
		GLIDE SCOPE ON CI	2	2.23	100		10
3S	14	MON COMPASS HDG IND	1	.78	100		10
		ON CI	2	2.23	100		10
3S	15	MONITOR A/C HEADING	1	60	10		10
		RELATIVE TO SELECTED	2	90	10		10
		HEADING ON CI	3	120	10		10
			4	20	10		10
3S	16	MON INDIC THAT A/C	1	2.23	10		10
		ABEAM OF MARKER AND					10
		ON HEADING					10
3S	17	MON A/C HEADING	1	30	10		10
		RELATIVE TO SELECTED	2	90	10		10
		COURSE ON CI	3	180	10		10
			4	285	10		10
3S	18	SET COMPASS SEL SW	1	2.15	100	100	10
		TO NO.1					10
3S	19	SET COMPASS SEL SW	1	2.15	100	100	10
		TO NO.2					10
3S	20	MON INDIC OF MARKER	1	2.23	100		10
		FLY OVER ON CI	2	.5	100		10
3U	01	MON TOTAL AIR TEMP	1	2.25	100		10
		INDIC	2	2.29	100		10
			3	1.17	100		10
			4	2.18	100		10
3V	01	MON GO AROUND ANNUN	1	1.21	100		10
		LT ON	2	.92	100		10
3V	02	MON GO AROUND ANNUN	1	1.21	100		10
		LT OFF	2	.92	100		10
3V	03	MON ALT HOLD ANNUN	1	1.21	100		10
		LT ON	2	.92	100		10
3V	04	MON ALT HOLD ANNUN	1	1.21	100		10
		LT OFF	2	.92	100		10
3V	05	MON VOR LOC ANNUN	1	1.21	100		10
		LT OFF	2	.92	100		10
3V	06	MON LOC ANNUN	1	1.21	50		10
		LT GREEN	2	.92	100		10
3V	08	MON GLIDE SLOPE	1	1.21	100		10
		ANNUN LT AMBER	2	.92	100		10
3V	09	MON GLIDE SLOPE	1	1.21	50		10
		ANNUN LT GREEN	2	.92	50		10
3V	10	MUN GLIDE SLOPE	1	1.21	100		10

C

C

3S

CP
CP
CP
AC
CP
P

		ANNUN LT OFF	2	.92	100		10		
3V	11	MONITOR OUTER MARKER	1	1.91	25		10	100	CP
		LT ON AND AUDIBLE	2	.72	25		10		
		SIGNAL					10		
3V	12	MON OUTER MARKER LT	1	1.91	25		10	100	
		OFF AND AUDIBLE SIG	2	.72	25		10		
		SILENT					10		
3V	13	MONITOR MIDDLE	1	1.91	25		10	100	
		MARKER ANNUN LT ON	2	.72	25		10		
		AND AUDIBLE SIGNAL					10		
3V	14	MON MIDDLE MARKER	1	1.91	25		10	100	
		ANNUN LT OFF AND	2	.72	25		10		
		AUDIBLE SIG SILENT					10		
3V	15	MON AIRWAYS MKR	1	1.91	25		10	100	
		ANNUN LT FLASHING	2	.72	25		10	100	P
		AND INTRMT AUDIBLE					10		
		SIGNAL					10		
3V	16	MON AIRWAYS MKR	1	1.91	100		10	100	
		ANNUN LT ON STEADY	2	.72	100		10	100	
		AND STEADY AUDIBLE					10		
		SIGNAL					10		
3V	17	MON AIRWAYS MKR	1	1.91	100		10	100	
		ANNUN LT OFF AND	2	.72	100		10	100	
		AUDIBLE SIG SILENT					10		
3V	18	SET MARKER SW TO LO	1	2.07	100	100	10		
3V	19	SET MKR SW TO HI	1	2.07	100	100	10		
3V	20	MON WINGS LEVEL LT	1	1.21	100		10		
		ON GREEN	2	.92	100		10		
3V	21	MON WINGS LEVEL LT	1	1.21	100		10		
		OFF	2	.92	100		10		
3V	22	MON BACK BEAM LT ON	1	1.21	100		10		
		GREEN	2	.92	100		10		
3V	23	MON BACK BEAM LT OFF	1	1.21	100		10		
			2	.92	100		10		
3V	24	MON HDG ON GREEN	1	1.21	100		10		
			2	.92	100		10		
3V	25	MON HDG LT OFF	1	1.21	100		10		
			2	.92	100		10		
3V	26	SET NO.2 COMM RECVR	1	2.43	100	100	10		CP
		MKR SW TO ON	2	1.43	100	100	10		P
3V	27	SET NO.2 COMM RECVR	1	2.43	100	100	10		
		MKR SW TO OFF	2	1.43	100	100	10		
3V	28	MON FLARE LT ON ANUN	1	1.21	50		10		
		PANEL- GREEN					10		
3W	01	MON INST COMP POWER	1	2.32	100		10		P
		LT ON					10		
3W	02	MON INST COMP POWER	1	2.32	100		10		
		LT OFF					10		
3W	03	MON INST COMP VERT	1	2.32	100		10		
		GYRO LT ON					10		
3W	04	MON INST COMP VERT	1	2.32	100		10		
		GYRO LT OFF					10		
3W	05	MON INST COMP G/S	1	2.32	100		10		
		LT ON					10		
3W	06	MON INST COMP G/S	1	2.32	100		10		
		LT OFF					10		
3W	07	MON INST COMP LOC	1	2.32	100		10		
		LT ON					10		
3W	08	MON INST COMP LOC	1	2.32	100		10		
		LT OFF					10		

4A	24	ACT CWS TO	1	15		100	100		10	
		ROTATE FOR LIFTOFF	2	5		100	100		10	
4A	25	MON MASTER CAUTION	1	.56	100				10	P
4A	26	ACTUATE MASTER CAUT	1	2.14	100	100			10	
		RESET SW	2	2.14	100		100		10	
4A	27	ACTUATE ANNUN PNL	1	1.93	100	100			10	
		RECALL SW	2	2.28	100		100		10	
4A	28	ACT FLT CONTROL TO	1	5		100	10		10	
		CHANGE HDG	2	10		100	10		10	
			3	15		100	10		10	
			4	20		100	10		10	
4A	29	ACT FLT CONTROL TO	1	5		100	30		10	
		CHANGE ALT	2	10		100	30		10	
			3	15		100	30		10	
			4	20		100	30		10	
4A	30	ACT FLT CONT TO	1	5		100	30		10	
		ALIGN A/C WITH ATT	2	10		100	30		10	
		INDICATORS	3	15		100	30		10	
			4	240		100	30		10	
4A	31	MANUALLY CONTROL A/C	1	75		50	10		10	
			2	10		50	10		10	
			3	15		50	10		10	
			4	20		50	10		10	
4A	32	MON FLT CONT	1	.56	100				10	
		ANNUN LT ON							10	
4A	33	MON FLT COUNT ANNUN	1	.56	100				10	
		LT OFF							10	
4A	34	MON MASTER CAUTION	1	.56	100				10	
		AND CVHD ANNUN LTS							10	
		ON							10	
4A	35	MON OVHD ANNUN LT ON	1	.56	100				10	
4A	36	MON OVHD ANNUN LT	1	.56	100				10	
		OFF							10	
4A	38	MON STALL WARNING	1	1.0	100				10	100
		STICK SHAKER							10	
4A	39	SET STALL WARNING	1	3.23	100		100		10	P
		SW TO HTR OFF	2	2.16	100		100		10	P
4A	40	SET STALL WARNING	1	3.23	100		100		10	
		SW TO NORMAL	2	2.16	100		100		10	
4A	41	SET STALL WARNING	1	3.23	100		100		10	
		SW TO TEST	2	2.16	100		100		10	
4A	42	MON STALL WARNING	1	.55	100				10	P
		OFF LT ON	2	.32	100				10	P
4A	43	MON STALL WARNING	1	.55	100				10	
		OFF LT OFF	2	.32	100				10	
4A	44	SET YAW DAMPER TEST	1	2.48	100		100		10	P
		SW TO L							10	
4A	45	SET YAW DAMPER TEST	1	2.48	100		100		10	
		SW TO R							10	
4A	46	ADJUST RUDDER PEDALS	1	3.0	100	100	100	100	100	
		FORE AND AFT FOR							10	
		COMFORT							10	
4A	48	CHECK FLIGHT CONT	1	2.79	100				10	P
		SYS A SW SET TO ON							10	
4A	49	CHECK FLIGHT CONT	1	2.02	100				10	P
		SYS B SW SET TO ON							10	
4A	50	CHECK ALT FLAPS SW	1	2.04	100				10	P
		SET TO OFF							10	
4A	51	CHECK SPOILER SYS A	1	2.04	100				10	P
		SW SET TO ON							10	

4A	52	CHECK SPOILER SYS B	1	2.02	100			10	P
		SW SET TO ON						10	
4A	53	CHECK YAW DAMPER SW	1	2.02	100			10	P
		SET TO OFF						10	
4A	54	MON YAW DAMPER LT	1	1.21	100			10	P
		OFF	2					10	
4A	55	MON YAW DAMPER LT ON	1	1.21	100			10	
4A	56	SET STABILIZER BRAKE	1	1.97	100	100		10	CP
			2	3.16	100		100	10	P
4A	57	RELEASE STAB BRAKE	1	1.97	100	100		10	
			2	3.16	100		100	10	
4A	58	MON YAW DAMPER IND	1	2.01	20	80		10	P
4A	59	MON A/P DISENGAGE LT	1	.68	100			10	P
		ON						10	
4A	60	MON ELEV POSITION	1	2.24	100			10	P
		INDIC						10	
4A	61	MON STALL WARNING	1	2.01	100			10	P
		TEST INDIC						10	
4A	62	MON FLT CONT SYS B	1	.66	100			10	
		HYD LO PRESS LT ON	2	1.21	100			10	
4A	63	MON FLT CONT SYS B	1	.66	100			10	
		HYD LO PRESS LT OFF	2	1.21	100			10	
4A	64	MANUALLY CONTROL A/C	1	32		80	30	10	
			2	10		50	10	10	
			3	5		50	10	10	
			4	30		50	10	10	
4A	65	MANUALLY CONTROL A/C	1	60		50	10	10	
			2	300		50	10	10	
			3	120		50	10	10	
			4	90		50	10	10	
4A	66	MANUALLY CONTROL A/C	1	90		100	10	10	
		TO MAKE RIGHT TURN	2	75		100	10	10	
		IN HOLDING PATTERN	3	60		100	10	10	
4A	67	ROLL OUT TO LEVEL	1	.001				10	
		CONFIGURATION						10	
4A	68	MANUALLY CONT A/C	1	26		100	30	10	
			2	90		50	10	10	
			3	90		10	100	10	
			4	285		50	10	10	
4A	69	ACT FLT CONT TO	1	180		100	30	10	
		ALIGN A/C WITH ATT	2	180		30	100	10	
		INDICATORS	3	30		100	30	10	
			4	60		100	30	10	
4A	70	ADJUST PANEL MOUNTED	1	3	100	100	100	10	
		CONTROLLER HEIGHT						10	
4A	71	ACT FLT CONTROLS TO	1	2		100	30	10	
		CHANGE HDG						10	
4A	72	MANUALLY CONTROL A/C	1	5		10	50	10	
	-		2	10		10	50	10	
			3	30		10	50	10	
			4	60		10	50	10	
4A	73	MANUALLY CONTROL A/C	1	90		10	50	10	
	-	COPILOT	2	120		10	50	10	
			3	240		10	50	10	
			4	300		10	50	10	
4A	74	ACTUATE CONTROLS TO	1	5		10	50	10	
	-	CHANGE HEADING	2	10		10	100	10	
			3	15		10	100	10	
			4	20		10	100	10	
4A	75	CONTROL A/C ON FINAL	1	5		10	100	10	

	APPROACH	2	10	10	100	10	
		3	15	10	100	10	
		4	245	10	100	10	
4A	76 STABILIZE CNTRL COL	1	2.5	100	50	10	
		2	2.5	50	100	10	
4A	77 TRIM STAB MANUALLY	1	2.5		50	10	
		2	2.5	50		10	
4A	78 ACT FLT CONT TO	1	30	30	100	10	
	ALIGN A/C WITH ATT	2	60	30	100	10	
	INDICATORS FD+CI						
4A	79 MANUALLY CONTROL	1	26	100	50	10	
	A/C THRU FLARE AND						
	TOUCHDOWN						
4B	01 ACTUATE ENG NO.1	1	2.34		100	10	
	THROTTLE	2	2.82		100	10	
		3	2.44		100	10	
		4	2.51		100	10	
4B	02 ACTUATE ENG NO.2	1	2.34		100	10	
	THROTTLE	2	2.42		100	10	
		3	2.44		100	10	
		4	2.51		100	10	
4B	03 ACTUATE BOTH	1	2.34		100	10	
	THROTTLES	2	2.82		50	10	
		3	2.44		100	10	
		4	2.51		100	10	
4B	04 CHECK THAT THRUST	1	2.54	100		10	P
	LEVERS IN CLOSED POS					10	
4B	05 ADVANCE THRUST LVRS	1	3.15		100	10	P
	TO NEAR VERTICAL POS					10	
4B	06 ADVANCE THRUST LVRS	1	2.44		100	10	P
	TO TAKEOFF THRUST					10	
4B	07 MAKE MINOR THRUST	1	2.73	100		10	AP
	ADJUSTMENT	2	2.73		100	10	
4B	08 SET THRUST LEVERS TO	1	2.50		100	10	
	IDLE	2	2.50			10	
4B	09 ACTUATE THROTTLES TO	1	5		5	10	
	ADJUST AIRSPEED	2	10		5	10	
		3	15		5	10	
		4	20		5	10	
4B	10 ACTUATE THROTTLES TO	1	30		5	10	
	ADJUST AIRSPEED	2	60		5	10	
		3	90		5	10	
		4	120		5	10	
4C	01 SET THRUST REVERSER	1	2.74		100	10	P
	LEVERS TO ON	2	21		100	10	
		3	21	100		10	
4C	02 SET THRUST REVERSER	1	2.76		100	10	P
	LEVERS TO OFF	2	2.76	100		10	
4C	03 MON ENG NO 1 REVER-	1	.76	100		10	P
	SER UNLOCKED LT ON	2	.54	100		10	P
4C	04 MON ENG NO 1 REVER-	1	.55	100		10	P
	SER UNLOCKED LT OFF	2	.76	100		10	
4C	05 MON ENG NO 2 REVER-	1	.76	100		10	
	SER UNLOCKED LT ON	2	.54	100		10	
4C	06 MON ENG NO 2 REVER-	1	.55	100		10	
	SER UNLOCKED LT OFF	2	.76	100		10	
4C	07 MON REVERSER ISOLA-	1	.76	100		10	
	TION VALVE LT ON					10	
4C	08 MON REVERSER ISOLA-	1	.76	100		10	
	TION VALVE LT OFF					10	

4C	09	MON MASTER CAUTION AND OVRHD ANNUN LTS ON	1	.73	100		10	
4C	10	PRESS MASTER CAUTION RESET SW	1	2.13	100	100	10	
4C	11	MON OVRHD CAUTION LT ON	2	2.49	100	100	10	
4C	12	MON OVRHD CAUTION LT OFF	1	.54	100		10	
4C	13	PRESS ANNUN PNL RECALL SW	1	2.13	100	100	10	
4C	14	SET ENG NO.1 THRUST REVERSER OVERRIDE SW TO NORMAL	2	2.49	100	100	10	
4C	15	SET ENG NO.1 THRUST REVERSE OVERRIDE SW TO OVERRIDE	1	3.29	100	100	10	P
4C	16	SET ENG NO.2 THRUST REVERSER OVERRIDE SW TO NORMAL	1	1.91	100	100	10	P
4C	17	SET ENG NO.2 THRUST REVERSER OVERRIDE SW TO OVERRIDE	1	1.91	100	100	10	
4C	18	MON THRUST REVERSER ARMED LT ON	1	.53	100		10	P
4C	19	MON THRUST REVERSER ARMED LT OFF	1	.53	100		10	
4C	20	MON THRUST REVERSER LO PRESS LT ON	1	1.30	100		10	P
4C	21	MON THRUST REVERSER LO PRESS LT OFF	1	1.30	100		10	
4C	22	MON THRUST REVERSER OVERRIDE SW=S IN NORMAL	1	2.18	100	100	10	
4C	23	CHECK THAT REV THRST LEVERS SET TO OFF	1	1.20	100		10	P
4D	01	SET LNDG GEAR LVR TO UP POSITION	1	3.06	50	100	10	C
			2	3.27	50	100	10	CP
			3	2.53	50	100	10	
4D	02	SET LANDING GEAR LVR TO OFF POSITION	1	3.06	100	100	10	
			2	3.27	100	100	10	
			3	2.53	100	100	10	
4D	03	SET LANDING GEAR LEVER TO DOWN POSITION	1	.4	25	100	10	
			2	2.53	25	100	10	C
			3	3.27	25	100	10	
			4	3.06	25	100	10	
4D	04	MONITOR LANDING GEAR LEVER POSITION	1	2.09	100		10	P
4D	05	MONITOR NOSE GEAR DOWN AND LOCKED LT ON	1	2.00	100		10	
			2	.54	100		10	
			3	.72	100		10	
4D	06	MONITOR NOSE GEAR DOWN AND LOCKED LT OFF	1	.54	100		10	C
			2	.72	100		10	CP
4D	07	MONITOR NOSE GEAR UNLOCKED LT ON	1	.54	100		10	
4D	08	MON NOSE GEAR UNLOCKED LT OFF	2	.72	100		10	
4D	09	MONITOR LEFT/RT GEAR DOWN AND LOCKED LT	1	2.00	100		10	
			2	.72	100		10	

		ON	3	.54	100				10
4D	10	MON LEFT/RT GEAR	1	.54	100				10
		DOWN AND LOCKED LT	2	.72	100				10
		OFF							10
4D	11	MON LEFT/RT GEAR	1	.54	100				10
		UNLOCKED LT ON	2	.72	100				10
4D	12	MON LEFT/RT GEAR	1	.54	100				10
		UNLOCKED LT OFF	2	.72	100				10
4D	13	ACTUATE LANDING GEAR							10
		LEVER OVERRIDE							10
		TRIGGER							10
4D	14	OPEN MANUAL GEAR	1	3.5	100	100			10
		HANDLE RELEASE							10
		ACCESS COVER							10
4D	15	CLOSE MANUAL GEAR	1	3.0	50	100			10
		HANDLE RELEASE							10
		ACCESS COVER							10
4D	16	ACTUATE RIGHT MAIN	1	.7	50	100			10
		GEAR RELEASE HANDLE							10
4D	17	ACTUATE NOSE GEAR	1	.7	50	100			10
		RELEASE HANDLE							10
4D	18	ACTUATE LEFT MAIN	1	.7	50	100			10
		GEAR RELEASE HANDLE							10
4D	19	OPEN NOSE GEAR							10
		VIEWING PORT							10
4D	20	CLOSE NOSE GEAR							10
		VIEWING PORT							10
4D	21	INSPECT NOSE GEAR							10
		LOCKED INDIC MARK							10
4D	22	OPEN MAIN GEAR							10
		VIEWING PORT							10
4D	23	CLOSE MAIN GEAR							10
		VIEWING PORT							10
4D	24	INSPECT MAIN GEAR							10
		LOCKED INDIC MARKS							10
4D	27	PULL PARKING BRAKE	1	3.14	80	100			10
		LEVER	2	3.06	80	100			10
			3	4	100	100			10
4D	28	ACTUATE BRAKES	1	1.50			100	100	10
		USING RUDDER PEDALS	2	10			100	100	10
			3	30			100	100	10
4D	29	MON PARKING BRAKE	1	9999					10
		WARNING LT ON	2	92	100				10
			3	.25	100				10
			4	.54	100				10
4D	30	MON PARKING BRAKE	1						10
		WARNING LT OFF	2	92	100				10
			3	.25	100				10
			4	.54	100				10
4D	31	MON LANDING GEAR							10
		NOT DOWN AND LOCKED							10
		WARNING HORN							10
4D	32	ACTUATE LANDING GEAR	1	2.16	100	100			10
		WARNING CUTOUT SW							10
4D	33	SET INBD ANTI-SKID	1	2.18	100	100			10
		SW TO ON	2	1.68	100	100			10
4D	34	SET INBD ANTI-SKID	1	2.18	100	100			10
		SW TO OFF	2	1.68	100	100			10
4D	35	SET OUTBD ANTI-SKID	1	2.18	100	100			10
		SW TO ON	2	1.68	100	100			10

P

CP

CP

CP

4D	36	SET OUTBD ANTI-SKID	1	2.18	100	100		10	
		SW TO OFF	2	1.68	100	100		10	
4D	37	MON ANTI-SKID INOP	1	.54	100			10	CP
		LT ON						10	
4D	38	MON ANTI-SKID INOP	1	.54	100			10	
		LT OFF						10	
4D	39	MON AUTO BRAKE INOP	1	.54	100			10	
		LT ON						10	
4D	40	MON AUTO BRAKE INOP	1	.26	100			10	CP
		LT OFF						10	
4D	41	SET AUTO BRAKE SEL	1	2.62	100	100		10	CP
		SW TO OFF	2	2.62	100		100	10	
4D	42	SET AUTO BRAKE SEL	1	2.62	100	100		10	
		SW TO MIN						10	
4D	43	SET AUTO BRAKE SEL	1	2.62	100	100		10	
		SW TO MED						10	
4D	44	SET AUTO BRAKE SEL	1	2.62	100	100		10	
		SW TO MAX						10	
4D	46	ACTUATE LANDING GEAR	1	2.16	100	100		10	CP
		WARNING HORN CUTOUT						10	
		SW						10	
4D	47	CHECK LANDING GEAR	1	.90	100			10	
		LEVER IN DOWN POS.						10	
4D	48	CHECK THAT ANTI-SKID	1	1.04	100			10	P
		CONT SW GUARDS ARE						10	
		DOWN						10	
4D	49	CHECK AUTO BRAKE SEL	1	1.08	100			10	P
		SW SET TO OFF						10	
4D	50	CHECK THAT PARKING	1	.97	100			10	P
		BRAKES ARE SET						10	
4D	51	SET PARKING BRAKE	1	2	100		100	10	
		LEVER TO OFF POS	2	3	100	100		10	
4D	52	RELEASE BRAKES	1	1.00				100	100
4D	53	SET GEAR SEAL SW TO	1	2.48	100	100		10	CP
		OFF						10	
4D	54	SET GEAR SEAL SW TO	1	2.48	100	100		10	
		NORMAL						10	
4D	55	MON GEAR SEAL LT ON	1	1	100			10	
4D	56	MON GEAR SEAL LT OFF	1	.55	100			10	
4E	01	SET ALT FLAPS MASTER	1	2.01	100		100	10	P
		SW TO ARM	2	1.70	100		100	10	P
4E	02	SET ALT FLAPS MASTER	1	2.01	100		100	10	
		SW TO OFF	2	1.70	100		100	10	
4E	03	SET ALT FLAPS SW TO	1	2.01	100		100	10	
		UP	2	1.70	100		100	10	
4E	04	SET ALT FLAPS SW TO	1	2.01	100		100	10	
		OFF	2	1.70	100		100	10	
4E	05	SET ALT FLAPS SW TO	1	2.01	100		100	10	
		DOWN	2	1.70	100		100	10	
			3					10	
4E	06	SET FLAP CONT LEVER	1	1.98	50	100		10	C
		TO FLAPS 0	2	2.22	50	100		10	C
			3	2.69	50	100		10	CP
4E	07	SET FLAP CONT LEVER	1	2.69	20	100		10	CP
		TO FLAPS 1						10	
4E	08	SET FLAP CONT LEVER	1	2.02	50	100		10	C
		TO FLAPS 2	2	2.69	50	100		10	CP
4E	09	SET FLAP CONT LEVER	1	4	50	100		10	
		TO FLAPS 5	2	1.93	50	100		10	C
			3	2.69	50	100		10	CP

4E	10	SET FLAP CONT LEVER	1	1.99	50	100	10	C
		TO FLAPS 10	2	2.89	50	100	10	CP
4E	11	SET FLAP CONT LEVER	1	.4	20	100	10	
		TO FLAPS 15	2	4.24	20	100	10	C
			3	2.46	20	100	10	C
			4	2.89	20	100	10	CP
4E	12	SET FLAP CONT LEVER	1	2.90	50	100	10	CP
		TO FLAPS 25					10	
4E	13	SET FLAP CONT LEVER	1	2.91	50	100	10	CP
		TO FLAPS 30					10	
4E	14	SET FLAP CONT LEVER	1	2.92	20	100	10	CP
		TO FLAPS 40					10	
4E	15	MONITOR FLAP	1	2.02	50		10	C
		POSITION INDICATOR	2	.4	50		10	
			3	2.23	50		10	C
			4	.97	50		10	C
4E	16	CHECK FLAP LEVER AND	1	2.50	100		10	
		POSITION INDIC AGREE					10	
4E	17	MON FLAP LEVER POS	1	1.24	50		10	P
4F	01	SET SPD BRAKE LEVER	1	2.61	10	100	10	P
		TO DOWN	2	2.99	10	100	10	
			3	3.26	10	100	10	
			4	2.81	10	100	10	P
4F	02	SET SPEED BRAKE	1	.4	10	100	10	
		LEVER TO ARM	2	.4	10	100	10	
			3	3.26	10	100	10	P
			4	2.81	10	100	10	
4F	03	SET SPEED BRAKE	1	2.99	25	100	10	P
		LEVER TO FLT DETENT	2	2.61	25	100	10	
			3	3.26	25	100	10	
			4	2.81	25	100	10	
4F	04	SET SPEED BRAKE	1	2.61	25	100	10	
		LEVER TO UP	2	2.99	25	100	10	
			3	3.26	25	100	10	
			4	2.81	25	100	10	
4F	05	MON SPD BRAKE DO	1	.73	100		10	
		NOT ARM LT ON	2	.83	100		10	
			3	.35	100		10	P
4F	06	MON SPD BRAKE DO	1	.73	100		10	
		NOT ARM LT OFF	2	.83	100		10	
			3	.35	100		10	
4F	07	MONITOR SPEED BRAKE	1	.2	100		10	
		LEVER ARMED LT	2	.73	100		10	P
		GREEN	3	.83	100		10	CP
			4	.35	100		10	P
4F	08	MON SPD BRAKE LEVER	1	.73	100		10	
		ARMED LT OFF	2	.83	100		10	
			3	.35	100		10	
4F	09	ACTUATE SPEED BRAKE	1	2.09	100	100	10	P
		1 TEST SW	2	1.35	100	100	10	P
4F	10	ACTUATE SPEED BRAKE	1	2.09	100	100	10	
		2 TEST SW	2	1.35	100	100	10	
			3	1.44	100	100	10	P
4F	11	ACTUATE SPEED BRAKE	1	2.09	100	100	10	
		3 TEST SW	2	1.35	100	100	10	
			3	1.47	100	100	10	P
4F	12	MON SPD BRK LEVER IN	1	2.0	100		10	
		DOWN AND DETENT POS.					10	
4G	01	ADJUST AILERON	1	4.04		100	10	
		TRIM WHEEL					10	

4G	02	ADJ STABILIZER TRIM WHEEL	1	2.56	50	100	10	P
			2	3.42	50	100	10	
			3	3.42	50	100	10	
4G	03	MON STABILIZER TRIM INDIC	1	2.48	100		10	P
			2	.26	100		10	
			3	2.01	100		10	
4G	04	SET PILOT STAB TRIM SWITCHES	1	2.11		100	10	CP
4G	05	ACTUATE STABILIZER BRAKE RELEASE	1	3.16	100	100	10	P
4G	06	ACTUATE STABILIZER BY CWS					10	
4G	07	ADJUST RUDDER TRIM WHEEL	1	3.59		100	10	
4G	08	SET STAB TRIM MAIN ELEC CUTOUT SW TO NORMAL	1	2.22	100	100	10	CP
			2	2.22	100	100	10	
4G	09	SET STAB TRIM MAIN ELEC CUTOUT SW TO CUTOUT	1	2.22	100	100	10	
			2	2.22	50	100	10	
4G	10	SET STAB TRIM A/P CUTOUT SW TO NORM	1	2.22	100	100	10	
4G	11	SET STAB TRIM A/P CUTOUT SW TO CUTOUT	2	1.25	100	100	10	
			1	2.22	100	100	10	
4G	12	MONITOR TAKEOFF WARNING HORN					10	100
4G	13	MON STAB TRIM LT ON	1	2.48	100		10	P
			2	2.13	100		10	
			3	.75	100		10	
			4	.66	100		10	
4G	14	MON STAB TRIM LT OFF	1	2.48	100		10	P
			2	2.13	100		10	
			3	.75	100		10	
			4	.66	100		10	
4G	15	CHECK THAT STAB TRIM CUTOUT SW'S SET TO NORMAL	1	1.30	100		10	P
4G	16	OPEN MAN STAB TRIM HANDLE	1	5	20	100	10	
			2	5	20	100	10	
4G	17	STOW MANUAL STAB HANDLE	1	3.5	20	100	10	
			2	3.5	20	100	10	
4H	01	SET FFD CWS SW TO ENGAGED	1	2.05	100	100	10	
4H	02	SET FFD CWS SW TO DISENGAGED	1	2.05	100	100	10	
4H	03	MON FFD CWS SW SET TO ENGAGED	1	1.50	100		10	
4H	04	MON FFD CWS SW SET TO DISENGAGED	1	1.50	100		10	
4H	05	SET AUTOPILOT TO HYD SYS A	1	2.37	100	100	10	
4H	06	SET AUTOPILOT TO HYD SYS B	1	2.37	100	100	10	
4M	01	ACTUATE NOSE GEAR STEERING WHEEL	1	5.68	100		10	P
			2	2.94	100		10	
			3	150	100		10	
			4	10	100		10	
4M	02	ACTUATE NOSE GEAR STEERING USING RUDDER PEDALS	1	15		100	10	
			2	20		100	10	
			3	150		100	10	

		TO ON					10	
5E	15	SET ADF NO.2 BFO SW	1	1.42	100	100	10	
		TO OFF					10	
5E	16	ADJUST ADF NO.2 LOOP	1	2.85	100	100	10	CP
		CONT					10	
5E	17	SEL ADF NO.2 FREQ	1	2.80	20	100	10	CP
		BAND .19-.40	2	2.69	20	100	10	CP
5E	18	SEL ADF NO.2 FREQ	1	2.80	20	100	10	
		BAND .40-.84	2	2.69	20	100	10	
5E	19	SEL ADF NO.2 FREQ	1	2.80	20	100	10	
		BAND .84-1.75	2	2.69	20	100	10	
5E	20	MON ADF NO.2 TUNING	1	2.26	100		10	CP
		METER INDIC					10	
5E	21	MON ADF/RMI 2 INDIC	1	2.26	100		10	
		FOR COMPASS HDG					10	
5E	22	MON ADF/RMI 2 SYNC	1	2.26	100		10	
		ANNUN					10	
5E	23	ADJUST ADF/RMI 2	1	2.68	100	100	10	CP
		SYNC SEL					10	
5E	24	MON ADF/RMI 2 COM-	1	2.26	100		10	
		PASS FLAG IN VIEW					10	
5E	25	MON ADF/RMI 2 COM-	1	2.26	100		10	
		PASS FLAG OUT OF					10	
		VIEW					10	
5E	26	MON ADF NO.1 POINTER	1	2.26	100		10	
		ON ADF/RMI 2 INDIC	2	2	10		10	
5E	27	MON ADF NO.2 POINTER	1	2.26	100		10	
		ON ADF/RMI 2 INDIC	2	2	10		10	
5G	01	SET VOR/RMI COMPASS	1	2.15	100	100	10	P
		SEL SW TO NO.2 NORM					10	
5G	02	SET VOR/RMI COMPASS	1	2.15	100	100	10	
		SEL SW TO NO.1					10	
5G	03	MON COMPASS HDG ON	1	2.25	100		10	P
		VOR/RMI 1 INDIC					10	
5G	04	MON VOR POINTER NO.1	1	2.25	100		10	
		ON VOR/RMI 1 INDIC	2	2	10		10	
5G	05	MON VOR POINTER NO.2	1	2.25	50		10	
		ON VOR/RMI 1 INDIC	2	2	10		10	
5G	06	SET COMPASS SEL SW	1	1.46	50	100	10	P
		TO NO.1					10	
5G	07	SET COMPASS SEL SW	1	1.46	100	100	10	
		TO NO.2					10	
5H	01	MON COMPASS HDG ON	1	2.27	100		10	CP
		VOR/RMI 2 INDIC	2	2.03	100		10	CP
5H	02	MON VOR POINTER NO.1	1	2.27	100		10	
		ON VOR/RMI 2 INDIC	2	2.03	100		10	
			3	2	10		10	
5H	03	MON VOR POINTER NO.2	1	2.27	100		10	
		ON VOR/RMI 2 INDIC	2	2.03	100		10	
			3	2	10		10	
5K	01	FOLD MAG COMPASS	1	3.50	100	100	10	
		INTO VIEW					10	
5K	02	MON MAG COMPASS	1	1.50	100		10	
		HEADING INDIC					10	
5K	03	FOLD MAG COMPASS	1	3.50	100	100	10	
		OUT OF VIEW	2	1.75	100	100	10	
5P	01	MONITOR RANGE INDIC	1	1.04	100		10	CP
		ON DME RNG NO 1	2	.96	100		10	
			3	1.16	100		10	
			4	.80	100		10	

5Q	01	MON RANGE INDIC ON	1	1.03	100		10	CP
		DME RNG NO 2	2	.96	100		10	
			3	1.16	100		10	CP
			4	.80	100		10	P
5U	01	MON NAV-1 FREQ INDIC	1	.76	100		10	
			2	4.97	90		10	
			3	5.08	90		10	
5U	02	SET NAV-1 FREQ -	1	2.89	10	100	10	
		WHOLE NO.5	2	2.08	10	100	10	
			3	3.00	10	100	10	CP
			4	2.08	10	100	10	
5U	03	SET NAV-1 FREQ -	1	2.08	10	100	10	
		FRACTIONS	2	2.08	10	100	10	CP
5U	04	ADJUST NAV-1 VOLUME	1	2.08	10	100	10	
			2	2.20	10	100	10	
5U	05	ACT NAV-1 UP/LT TEST	1	2.24	10	100	10	P
		SW					10	
5U	06	ACT NAV-1 DN/RT TEST	1	1.97	10	100	10	P
		SW					10	
5U	07	ACT NAV-1 VOR TEST	1	2.26	10	100	10	P
		SW	2	2.35	10	100	10	CP
5U	08	ACT NAV-1 DME TEST	1	1.97	10	100	10	CP
		SW	2	2.34	10	100	10	CP
			3	2.20	10	100	10	P
5U	09	SET COMM 2 FILTER	1	2.00	100	100	10	P
		SEL SW TO VOICE					10	
5U	10	SET COMM 2 FILTER	1	2.00	100	100	10	
		SEL SW TO BOTH					10	
5U	11	SET COMM 2 FILTER	1	2.00	100	100	10	
		SEL SW TO RANGE	2	2.00	100	100	10	
5U	12	SET COMM 2 NAV-1 NAV	1	2.46	100	100	10	
		RCVR SW TO ON	2	2.44	100	100	10	
			3	1.39	100	100	10	
			4	2.26	100	100	10	
5U	13	SET COMM 2 NAV-1 NAV	1	2.46	100	100	10	
		RCVR SW TO OFF	2	2.44	100	100	10	
			3	1.39	100	100	10	
			4	2.26	100	100	10	
5U	14	MON NAV-1 AUDIO					10	
5V	01	MON NAV-2 FREQ INDIC	1	.76	100		10	
			2	4.71	90		10	
			3	4.91	90		10	
5V	02	SET NAV-2 FREQ -	1	2.73	10	100	10	C
		WHOLE NO.5	2	2.93	10	100	10	CP
			3	2.97	10	100	10	P
5V	03	SET NAV-2 FREQ -	1	1.98	10	100	10	CP
		FRACTIONS	2	1.98	10	100	10	
			3	2.10	10	100	10	P
5V	04	ADJUST NAV-2 VOLUME	1	2.18	10	100	10	C
			2	2.93	10	100	10	CP
5V	05	ACT NAV-2 UP/LT TEST	1	1.79	10	100	10	CP
		SW					10	
5V	06	ACT NAV-2 DN/RT TEST	1	1.97	10	100	10	CP
		SW					10	
5V	07	ACT NAV-2 VOR TEST	1	2.28	10	100	10	CP
		SW	2	2.34	10	100	10	P
5V	08	ACT NAV-2 DME TEST	1	1.84	10	100	10	CP
		SW					10	
5V	09	SET COMM 2 FILTER	1	2.09	100	100	10	CP
		SEL SW TO VOICE	2	2.00	100	100	10	P

5V	10	SET COMM 2 FILTER	3	2.83	100	100	10	CP
		SEL SW TO BOTH	1	2.09	100	100	10	
			2	2.00	100	100	10	
			3	2.83	100	100	100	
5V	11	SET COMM 2 FILTER	1	2.09	100	100	10	
		SEL SW TO RANGE	2	2.00	100	100	100	
			3	2.83	100	100	10	
5V	12	SET COMM 2 NAV-2 NAV	1	2.40	100	100	10	CP
		RECVR SW TO ON	2	1.40	100	100	10	
			3	2.49	100	100	10	
			4	1.39	100	100	100	P
5V	13	SET COMM 2 NAV-2 NAV	1	2.40	100	100	10	
		RECVR SW TO OFF	2	1.40	100	100	10	
			3	2.49	100	100	10	
			4	1.39	100	100	10	
5V	14	MON NAV-2 AUDIO					10	
5W	01	MON NAV-1 FREQ INDIC	1	.76	100		10	AP
			2	4.49	100		10	
			3	3.95	100		10	
5W	02	SET NAV-1 FREQ -	1	2.91		100	10	A
		WHOLE NO.S	2	2.37		100	10	AC
5W	03	SET NAV-1 FREQ -	1	1.58		100	10	
		FRACTIONS	2	1.58		100	10	
5W	04	ADJ NAV-1 VOLUME	1	1.58	10	100	10	
			2	2.91	10	100	10	
			3	1.58	10	100	10	
			4	2.91	10	100	10	
5W	05	SET COMM 1 NAV-1 NAV	1	2.28	100	100	10	A
		RECVR SW TO ON	2	2.40	100	100	10	AC
5W	06	SET COMM 1 NAV-1 NAV	1	2.28	100	100	10	
		RECVR SW TO OFF	2	2.40	100	100	10	
5X	01	MON NAV-2 FREQ INDIC	1	.76	100		10	A
			2	4.57	100		10	
			3	4.53	100		10	
5X	02	SET NAV-2 FREQ -	1	2.89	10	100	10	A
		WHOLE NO.S	2	2.95		100	10	AC
5X	03	SET NAV-2 FREQ -	1	1.58	10	100	10	
		FRACTIONS	2	1.58		100	10	
5X	04	ADJ NAV-2 VOLUME	1	1.58	10	100	10	
			2	2.99	10	100	10	
5X	05	SET COMM 2 NAV-2 NAV	1	2.39	100	100	10	A
		RECVR SW TO ON	2	2.28	100	100	10	AC
5X	06	SET COMM 2 NAV-2 NAV	1	2.39	100	100	10	
		RECVR SW TO OFF	2	2.28	100	100	10	
5Y	01	MON NAV-3 FREQ INDIC	1	.76	100		10	A
			2	4.65	100		10	
			3	4.70	100		10	
5Y	02	SET NAV-3 FREQ-	1	3.07	10	100	10	A
		WHOLE NO.S	2	3.12		100	10	
5Y	03	SET NAV-3 FREQ-	1	1.58	10	100	10	
		FRACTIONS	2	1.58	10	100	10	
5Y	04	ADJ NAV-3 VOLUME	1	3.07	10	100	10	5Y
			2	3.12	10	100	10	
5Y	05	SET COMM 3 NAV-3 NAV	1	2.50	100	100	10	AC
		RECVR SW TO ON					10	
5Y	06	SET COMM 3 NAV-3 NAV	1	2.50	100	100	10	
		RECVR SW TO OFF					10	
6A	01	MON WEATHER RADAR	1	4.11	100		10	
		VIDEO	2	2.39	100		10	P
			3	2.00	100		10	P

6A	02 SEL 30-10 PPI SCALE	1	2.66	80	100	10	P
		2	2.18	80	100	10	
		3	2.66	80	100	10	
6A	03 SEL 80-20 PPI SCALE	1	2.66	80	100	10	
		2	2.18	80	100	10	
6A	04 SEL 180-30 PPI SCALE	1	2.66	80	100	10	
		2	2.18	80	100	10	
6A	05 ADJUST PPI TRACE CON	1	2.21	80	100	10	P
6A	06 ADJUST PPI ERASE	1	2.28	80	100	10	P
	RATE CONT					10	
6A	07 ADJUST PPI DIMMER	1	2.19	80	100	10	P
		2	2.14	80	100	10	
6A	08 ADJUST PPI POLARI-					10	
	ZATION CONT					10	
6A	09 SET W/R FUNC SEL SW	1	2.37	100	100	10	CP
		2	2.38	100	100	10	
6A	10 SET W/R FUNC SEL SW	1	2.37	100	100	10	P
		2	2.38	100	100	10	
6A	11 SET W/R FUNC SEL SW	1	2.37	100	100	10	
		2	2.38	100	100	10	
6A	12 SET W/R FUNC SEL SW	1	2.37	100	100	10	
		2	2.38	100	100	10	
6A	13 SET W/R FUNC SEL SW	1	2.37	100	100	10	
		2	2.38	100	100	10	
6A	14 SET W/R FUNC SEL SW	1	2.37	100	100	10	
		2	2.38	100	100	10	
6A	15 ADJUST W/R GAIN CONT	1	2.17	80	100	10	P
		2	2.12	80	100	10	
6A	16 ADJUST W/R ANT TILT	1	2.17	80	100	10	P
		2	2.02	80	100	10	
6A	17 CHECK W/R OFF	1	2.17	100		10	
6A	01 SET HYD PUMP A NO 1	1	2.75	100	100	10	CP
		2	1.46	100	100	10	
		3	2.55	100	100	10	
	ENG SW TO ON	4	1.46	100	100	10	
7A	02 SET HYD PUMP A NO 1	1	1.95	100	100	10	
		2	1.46	100	100	10	
		3	1.46	100	100	10	
	ENG SW TO OFF	4	2.75	100	100	10	
7A	03 SET HYD PUMP A NO 2	1	1.95	100	100	10	
		2	1.46	100	100	10	
7A	04 SET HYD PUMP A NO 2	1	1.95	100	100	10	
		2	1.46	100	100	10	
	ENG SW TO OFF	3	1.46	100	100	10	
7A	05 SET HYD PUMP B NO 1	1	1.95	100	100	10	
		2	1.46	100	100	10	
		3	1.46	100	100	10	
7A	06 SET HYD PUMP B NO 1	1	1.95	100	100	10	CP
		2	1.46	100	100	10	
		3	1.46	100	100	10	
7A	07 SET HYD PUMP B NO 2	1	1.95	100	100	10	
		2	1.46	100	100	10	
		3	1.46	100	100	10	
7A	08 SET HYD PUMP B NO 2	1	1.46	100	100	10	CP
		2	1.95	100	100	10	
		3	1.46	100	100	10	
	ENG SW TO OFF					10	
7A	09 MON HYD SYS A NO 1	1	.55	100		10	
	PUMP LO PRESS LT ON					10	
7A	10 MON HYD SYS A NO P	1	.55	100		10	
						10	
	PUMP LO PRESS LT OFF					10	

7A	11	MON HYD SYS B NO 1	1	.55	100				10		CP
		PUMP LO PRESS LT ON							10		
7A	12	MON HYD SYS B NO 1	1	.55	100				10		
		PUMP LO PRESS LT OFF							10		
7A	13	MON HYD SYS B NO 2	1	.55	100				10		CP
		PUMP LO PRESS LT ON							10		
7A	14	MON HYD SYS B NO 2	1	.55	100				10		
		PUMP LO PRESS LT OFF							10		
7A	15	MON HYD SYS B NO 1	1	.55	100				10		
		PUMP OVRHT LT ON							10		
7A	16	MON HYD SYS B NO 1	1	.55	100				10		
		PUMP OVRHT LT OFF							10		
7A	17	MON HYD SYS B NO 2	1	.55	100				10		
		PUMP OVRHT LT ON							10		
7A	18	MON HYD SYS B NO 2	1	.55	100				10		
		PUMP OVRHT LT OFF							10		
7A	19	MON HYD BRAKE PRESS	1	2.24	100				10		C
		INDIC	2	2.07	100				10		CP
7A	20	MON HYD PRESS INDIC	1	2.03	100				10		CP
			2	2.24	100				10		
7A	21	MON HYD SYS A QTY	1	2.02	100				10		CP
		INDIC	2	2.24	100				10		
7A	22	MON HYD SYS B LO QTY	1	.54	100				10		CP
		LT ON	2	1.27	100				10		CP
7A	23	MON HYD SYS B LO QTY	1	.54	100				10		
		LT OFF	2	1.27	100				10		
7A	24	MON MASTER CAUT AND	1	.53	100				10		
		HTDRAULIC ANNUN LTS							10		
		ON							10		
7A	25	ACTUATE MASTER CAUT	1	2.14	100	100			10		
		RESET SW	2	2.14	100		100		10		
7A	26	MON HYD ANNUN LT ON	1	.53	100				10		CP
7A	27	MON HYD ANNUN LT OFF	1	.53	100				10		
7A	28	ACTUATE ANNUN PNL	1	2.28	10	100			10		
		RECALL SW	2	1.93	10	100			10		7A
7A	29	CHECK SYS B HYD PUMP	1	.90	100				10		
		SWAS OFF	2	1.52	100				10		P
7A	30	CHECK ENG NO.1 SYS A	1	1.36	100				10		P
		HYD PUMP SW SET TO							10		
		ON							10		
7A	31	CHECK ENG NO.2 SYS A	1	.75	100				10		P
		HYD PUMP SW SET TO							10		
		ON							10		
7A	32	MON HYD SYS SWAS	1	2.00	100				10		
7A	33	MON MASTER CAUTION	1	.70	100				10		
		AND ALL ANNUN PNL	2	.54	100				10		
		LTS ILLUMINATED							10		
7A	34	SET GROUND INTER-	1	1.48	100	100			10		CP
		CONNECT SW TO OPEN	2	2.58	100		100		10		P
7A	35	SET GROUND INTER-	1	1.48	100	100			10		
		CONNECT SW TO CLOSED	2	2.58	100		100		10		
7A	36	MON ALL ANNUN LTS	1	.53	100				10		
7A	37	MON OVHD PNL LTS	1	2.2	100				10		
7A	38	MON HYD SYS A NO 2	1	.55	100				10		
		PUMP LO PRESS LT ON							10		
7A	39	MON HYD SYS A NO 2	1	.55	100				10		
		PUMP LO PRESS LT ON							10		
7B	03	MON NO 1 GEN DR LOW	1	1.02	100				10		P
		OIL PRESS LT ON							10		
7B	04	MON NO 1 GEN DR LOW	1	1.02	100				10		

			3	1.75	100	100	10	P
			4	1.75	100	100	10	
7B	35	SET APU GEN NO.1 SW	1	1.98	100	100	10	P
		TO OFF	2	1.50	100	100	10	P
			3	1.75	100	100	10	
7B	36	MON GEN NO.2 TRANS	1	.59	100		10	P
		FER BUS OFF LT ON	2	.92	100		10	
7B	37	MON GEN NO.2 TRANS-	1	.59	100		10	
		FER BUS OFF LT OFF	2	.92	100		10	
7B	38	MON GEN NO.2 BUS OFF	1	.59	100		10	
		LT ON	2	.92	100		10	
7B	39	MON GEN NO.2 BUS OFF	1	.59	100		10	
		LT OFF	2	.92	100		10	
7B	40	MON GEN NO.2 GEN OFF	1	.59	100		10	
		BUS LT ON	2	.92	100		10	
7B	41	MON GEN NO.2 GEN OFF	1	.59	100		10	
		BUSS LT OFF					10	
7B	42	SET GEN NO.2 SW TO	1	1.72	100	100	10	
		ON					10	
7B	43	SET GEN NO.2 SW TO	1	1.72	100	100	10	
		OFF					10	
7B	44	SET APU GEN NO.2 SW	1	1.98	100	100	10	P
		TO ON	2	1.50	100	100	10	P
7B	45	SET APU GEN NO.2 SW	1	1.98	100	100	10	
		TO OFF	2	1.50	100	100	10	
7B	46	SET GRD PWR SW TO ON	1	2.44	100	100	10	P
7B	47	SET GRD PWR SW TO	1	2.44	100	100	10	
		OFF					10	
7B	48	MON GRD PWR AVAIL	1	1.02	100		10	
		LT ON					10	
7B	49	MON GRD PWR AVAIL	1	1.02	100		10	
		LT OFF					10	
7B	50	MON NO.1 GEN AC AMPS	1	2.16	100		10	P
		INDIC					10	
7B	51	MON NO.2 GEN AC AMPS	1	2.16	100		10	
		INDIC					10	
7B	52	MON DC AMPS INDIC	1	2.04	100		10	
			2	1	100		10	
7B	53	MON DC VOLTS INDIC	1	2.06	100		10	
7B	54	SET BATTERY SW TO ON	1	2.06	100	100	10	
			2	3.30	100	100	10	
7B	55	SET BATTERY SW TO	1	2.06	100	100	10	
		OFF	2	3.30	100	100	10	
			3	3.30	100	100	10	
7B	56	SET DC METER SEL SW	1	3.36	100	100	10	
		TO STDBY PWR	2	2.18	100	100	10	
7B	57	SET DC METER SEL SW	1	3.36	100	100	10	
		TO BATT	2	2.18	100	100	10	
7B	58	SET DC METER SEL SW	1	3.36	100	100	10	
		TO TR 1	2	2.18	100	100	10	
7B	59	SET DC METER SEL SW	1	3.36	100	100	10	
		TO TR 2	2	2.18	100	100	10	
7B	60	SET DC METER SEL SW	1	3.36	100	100	10	
		TO TR 3	2	2.18	100	100	10	
7B	61	SET DC METER SEL SW	1	3.36	100	100	10	
		TO TEST	2	2.18	100	100	10	
7B	62	MON AC FREQ INDIC	1	2.04	100		10	P
7B	63	MON AC VOLTS INDIC	1	2.06	100		10	P
			2	1	100		10	
7B	64	SET AC METER SEL SW	1	3.36	100	100	10	P

		TO STDBY PWR	2	2.18	100	100	10	
7B	65	SET AC METER SEL SW	1	3.36	100	100	10	P
		TO GND PWR	2	2.18	100	100	10	
7B	66	SET AC METER SEL SW	1	3.36	100	100	10	
		TO GEN 1	2	2.18	100	100	10	
7B	67	SET AC METER SEL SW	1	3.36	100	100	10	
		TO APU GEN	2	2.18	100	100	10	
7B	68	SET AC METER SEL SW	1	3.36	100	100	10	
		TO GEN 2	2	2.18	100	100	10	
7B	69	SET AC METER SEL SW	1	3.36	100	100	10	
		TO TEST	2	2.18	100	100	10	
7B	70	SET GALLEY PWR SW	1	.56	100	100	10	P
		TO ON	2	1.80	100	100	10	P
7B	71	SET GALLEY PWR SW	1	.56	100	100	10	
		TO OFF	2	1.00	100	100	10	
			3	1.80	100	100	10	
7B	72	ACTUATE RESIDUAL	1	2.57	100	100	10	P
		VOLTS SW	2	2.06	90	100	10	
7B	73	MON MASTER CAUTION	1	.73	100		10	P
		AND ELEC ANNUN LTS					10	
		ON					10	
7B	74	ACTUATE MASTER CAUT	1	2.13	100	100	10	P
		RESET SW	2	2.49	100	100	10	P
7B	75	MON ELEC ANNUN LT ON	1	.54	100		10	P
7B	76	MON ELEC ANNUN LT	1	.54	100		10	
		OFF					10	
7B	77	ACTUATE ANNUN PNL	1	2.13	100		10	
		RECALL SW	2	2.49	100		10	
7B	75	SET EQUIP COOLING SW	1	1.65	100	100	10	P
		TO NORMAL					10	
7B	79	SET EQUIP COOLING SW	1	1.65	100	100	10	
		TO ALTERNATE					10	
7B	80	MON EQUIP COOLING	1	1.04	100		10	P
		OFF LT ON	2	1.13	100		10	P
7B	81	MON EQUIP COOLING	1	1.04	100		10	
		OFF LT OFF	2	1.13	100		10	
7B	82	MON OVHD ANNUN LT ON	1	.54	100		10	
7B	83	MON OVHD ANNUN LT	1	.54	100		10	
		OFF					10	
7B	84	CHECK BATT SW ON	1	.90	100		10	
7B	85	CHECK CBAS ON P-6	1	4.00	100		10	
		PNL					10	
7B	86	CHECK MASTER ELEC SW	1	4.00	100		10	
		ON P-6 PNL	2	2.00	100		10	
7B	87	CHECK CBAS ON P-18	1	4.00	100		10	
		PNL					10	
7B	88	CHECK ENG NO.1 GEN	1	1.33	100		10	P
		DR DISCON SW					10	
		SAFETIED					10	
7B	89	CHECK ENG NO.2 GEN	1	.80	100		10	P
		DR DISCON SW					10	
		SAFETIED					10	
7B	90	CHECK THAT CSD DRIVE	1	1.39	100		10	P
		TEMP SW SET TO IN					10	
7B	91	CHECK THAT BUS TX SW	1	1.23	100		10	P
		IS SET TO AUTO					10	
7B	92	CHECK THAT EQUIP	1	1.35	100		10	P
		COOLING SW IS SET TO					10	
		NORMAL					10	
7B	93	MON GALLEY POWER SW	1	1.41	100		10	P

		SET TO ON					10
7B	94	MON GALLEY POWER SW	1	1.41	100		10
		SET TO OFF					10
7C	01	MON V-REF INDIC	1	2.3	100		10
7C	02	SET ZERO FUEL WT SEL	1	4	20	80	10
7C	03	MON ZERO FUEL WT	1	4	80		10
7C	07	SET LANDING FLAP SEL	1	1.8	100	100	10
7C	09	MON TANK NO 1 FUEL	1	2.02	100		10
		QTY INDIC	2	2.27	100		10
			3	3	30		10
7C	10	MON TANK NO.2 FUEL	1	2.02	100		10
		QTY INDIC	2	2.27	100		10
			3	3	30		10
7C	11	MON CTR TANK FUEL	1	2.10	100		10
		QTY INDIC	2	2.46	100		10
			3	3	30		10
7C	12	MON FUEL TEMP INDIC	1	2.05	100		10
7C	13	MON CROSSFEED VALVE	1	.55	100		10
		OPEN LT OFF					10
7C	14	MON CROSSFEED VALVE	1	.55	100		10
		OPEN LT ON BRIGHT					10
7C	15	MON CROSSFEED VALVE	1	.55	100		10
		OPEN LT ON DIM					10
7C	16	SET CROSSFEED SEL	1	2.79	100	100	10
		SW TO OPEN	2	2.02	100	100	10
7C	17	SET CROSSFEED SEL	1	2.79	100	100	10
		SW TO CLOSED	2	2.02	100	100	10
7C	18	SET ENG NO 1 FUEL HT	1	1.99	100	100	10
		SW TO ON					10
7C	19	SET ENG NO.1 FUEL HT	1	1.99	100	100	10
		SW TO OFF					10
7C	20	MON CTR TANK LEFT	1	.89	100		10
		FUEL PUMP LO PRESS	2	.55	100		10
		LT ON					10
7C	21	MON CTR TANK LEFT	1	.89	100		10
		FUEL PUMP LO PRESS	2	.55	100		10
		LT OFF					10
7C	22	MON CTR TANK RIGHT	1	.55	100		10
		FUEL PUMP LO PRESS	2	.89	100		10
		LT ON					10
7C	23	MON CTR TANK RIGHT	1	.55	100		10
		FUEL PUMP LO PRESS	2	.89	100		10
		LT OFF					10
7C	24	SET CTR TANK LEFT	1	1.45	100	100	10
		FUEL PUMP SW TO ON	2	2.35	100	100	10
7C	25	SET CTR TANK LEFT	1	1.45	100	100	10
		FUEL PUMP SW TO OFF	2	2.35	100	100	10
			3	2.35	100	100	10
			4	1.45	100	100	10
7C	26	SET CTR TANK RIGHT	1	1.45	100	100	10
		FUEL PUMP SW TO ON	2	2.35	100	100	10
7C	27	SET CTR TANK RIGHT	1	1.45	100	100	10
		FUEL PUMP SW TO OFF	2	2.35	100	100	10
			3	1.45	100	100	10
7C	28	MON TANK NO.1 AFT	1	.58	100		10
		FUEL PUMP LO PRESS	2	.95	100		10
		LT ON					10
7C	29	MON TANK NO.1 AFT	1	.58	100		10
		FUEL PUMP LO PRESS	2	.95	100		10
		LT OFF					10

P
P

P
P

P
P

P
P

P
P

P

P
P

P
P

P

7C	30	SET TANK NO.1 AFT	1	1.97	100	100	10	
		FUEL PUMP SW TO ON	2	1.59	100	100	10	
			3	2.35	100	100	10	
7C	31	SET TANK NO.1 AFT	1	1.97	100	100	10	7C
		FUEL PUMP SW TO OFF	2	1.59	100	100	10	P
			3	2.35	100	100	10	7C
			4	1.59	100	100	10	
7C	32	MON TANK NO.1 FWD	1	.55	100	100	10	P
		FUEL PUMP LOW PRESS	2	.95	100		10	
		LT ON					10	
7C	33	MON TANK NO.1 FWD	1	.55	100		10	
		FUEL PUMP LOW PRESS	2	.75	100		10	
		LT OFF					10	
7C	34	SET TANK NO.1 FWD	1	1.46	100	100	10	
		FUEL PUMP SW TO ON	2	1.39	100	100	10	
7C	35	SET TANK NO.1 FWD	1	1.46	100	100	10	P
		FUEL PUMP SW TO OFF	2	1.39	100	100	10	P
			3	1.39	100	100	10	
			4	1.39	100	100	10	
7C	36	MON TANK NO.2 FWD	1	.54	100	100	10	7C
		FUEL PUMP LOW PRESS	2	.98	100		10	P
		LT ON					10	
7C	37	MON TANK NO.2 FWD	1	.55	100		10	
		FUEL PUMP LOW PRESS	2	.95	100		10	
		LT OFF					10	
7C	38	SET TANK NO.2 FWD	1	1.45	100	100	10	
		FUEL PUMP SW TO ON					10	
7C	39	SET TANK NO.2 FWD	1	1.45	100	100	10	P
		FUEL PUMP SW TO OFF	2	1.45	100	100	10	
7C	40	MON TANK NO.2 AFT	1	.58	100		10	P
		FUEL PUMP LOW PRESS	2	.95	100		10	
		LT ON					10	
7C	41	MON TANK NO.2 AFT	1	.55	100		10	
		FUEL PUMP LOW PRESS	2	.95	100		10	
		LT OFF					10	
7C	42	SET TANK NO.2 AFT	1	1.56	100	100	10	
		FUEL PUMP SW TO ON	2	1.45	100	100	10	
7C	43	SET TANK NO.2 AFT	1	1.56	100	100	10	P
		FUEL PUMP SW TO OFF	2	1.56	100	100	10	
7C	44	MON ENG NO.1 FUEL	1	.55	100		10	
		VALVE CLOSED LT OFF	2	.95	100		10	
7C	45	MON ENG NO.1 FUEL	1	.55	100		10	
		VALVE CLOSED LT ON	2	.95	100		10	
		BRIGHT					10	
7C	46	MON ENG NO.1 FUEL	1	.55	100		10	
		VALVE CLOSED LT ON	2	.95	100		10	
		DIM					10	
7C	47	MON ENG NO.1 FILTER	1	.95	100		10	P
		ICING LT ON	2	.55	100		10	
7C	48	MON ENG NO.1 FILTER	1	.95	100		10	
		ICING LT OFF	2	.55	100		10	
7C	49	MON ENG NO.1 VALVE	1	.55	100		10	P
		OPEN LT OFF	2	.95	100		10	
7C	50	MON ENG NO.1 VALVE	1	.55	100		10	
		OPEN LT ON BRIGHT	2	.95	100		10	
7C	51	MON ENG NO.1 VALVE	1	.55	100		10	
		OPEN LT ON DIM	2	.95	100		10	
7C	52	MON ENG NO.2 FUEL	1	.55	100		10	
		VALVE CLOSED LT OFF	2	.95	100		10	
7C	53	MON ENG NO.2 FUEL	1	.55	100		10	

		VALVE CLOSED LT ON	2	.95	100			10	
		BRIGHT						10	
7C	54	MON ENG NO.2 FUEL	1	.55	100			10	
		VALVE CLOSED LT ON	2	.95	100			10	
		DIM						10	
7C	55	MON ENG NO.2 FILTER	1	.55	100			10	
		ICING LT ON	2	.95	100			10	
7C	56	MON ENG NO.2 FILTER	1	.55	100			10	
		ICING LT OFF	2	.95	100			10	
7C	57	MON ENG NO.2 VALVE	1	.55	100			10	
		OPEN LT OFF	2	.95	100			10	
7C	58	MON ENG NO.2 VALVE	1	.55	100			10	
		OPEN LT ON BRIGHT	2	.95	100			10	
7C	59	MON ENG NO.2 VALVE	1	.55	100			10	
		OPEN LT ON DIM	2	.95	100			10	
7C	60	SET ENG NO.2 FUEL	1	1.62	100	100		10	P
		HT SW TO ON						10	
7C	61	SET ENG NO.2 FUEL	1	1.62	100	100		10	
		HT SW TO OFF						10	
7C	62	MON MASTER CAUTION	1	.73	100			10	P
		AND FUEL ANNUN LTS						10	
		ON						10	
7C	63	PRESS MASTER CAUT	1	2.02	100	100		10	P
		RESET SW						10	
7C	64	MON FUEL ANNUN LT ON	1	.56	100			10	P
7C	65	MON FUEL ANNUN LT	1	.56	100			10	
		OFF						10	
7C	66	PRESS ANNUN PNL	1	2.02	100			10	
		RECALL SW						10	
7C	67	CHECK ENG NO.1 FUEL	1	1.14	100			10	P
		HEAT SW OFF						10	
7C	68	CHECK ENG NO.2 FUEL	1	.83	100			10	P
		HEAT SW OFF						10	
7C	69	CHECK CROSSFEED	1	.81	100			10	P
		VALVE SW CLOSED						10	
7C	70	MON FUEL PUMP SW3S	1	1.59	100			10	P
		ALL SET TO ON						10	
		(6 SWITCHES)						10	
7C	71	MON FUEL PUMP SW3S	1	1.59	100			10	
		ALL SET TO OFF						10	
		6 SWITCHES						10	
7C	72	PRESS FUEL QTY TEST	1	2.07	10	100		10	
		SW	2	2.07	10	100		10	
			3	6.20	5	100		10	
7D	01	MON DUCT PRESS INDIC	1	2.29	100			10	CP
7D	02	SET GASPER FAN SW TO	1	2.70	100	100		10	
		ON	2	2.70	100	100		10	
7D	03	SET GASPER FAN SW TO	1	2.70	100	100		10	
		OFF	2	2.70	100	100		10	
7D	04	ACTUATE WING BODY	1	2.20	100	100		10	
		OVRHT TEST SW						10	
7D	05	SET LEFT PACK SW	1	1.52	100	100		10	CP
		TO ON	2	2.49	100	100		10	CP
			3	1.52	100	100		10	
			4	2.69	100	100		10	
7D	06	SET LEFT PACK SW	1	1.52	100	100		10	
		TO OFF	2	2.49	100	100		10	
			3	2.65	100	100		10	
7D	07	SET LEFT PACK BLEED	1	2.00	100	100		10	CP
		SW TO ON						10	

7D	08	SET LEFT PACK BLEED SW TO OFF	1	2.00	100	100		10	CP
7D	09	MON LEFT PACK OFF LT ON	1	1.00	50			10	
7D	10	MON LEFT PACK OFF LT OFF	1	1.00	50			10	
7D	11	MON LEFT WING BODY OVRHT LT ON	1	1.00	50			10	CP
7D	12	MON LEFT WING BODY OVRHT LT OFF	1	1.00	50			10	
7D	13	MON LEFT BLEED TRIP OF LT ON	1	1.00	50			10	
7D	14	MON LEFT BLEED TRIP OFF LT OFF	1	1.00	50			10	
7D	15	SET LEFT ENG BLEED SW TO ON	1	2.40	100	100		10	
7D	16	SET LEFT ENG BLEED SW TO OFF	2	1.53	100		100	10	
7D	17	SET APU ENG BLEED SW TO ON	1	2.40	100	100		10	CP
7D	18	SET APU ENG BLEED SW TO OFF	2	1.53	100		100	10	P
7D	19	SET RIGHT PACK SW TO ON	1	2.60	100	100		10	CP
7D	20	SET RIGHT PACK SW TO OFF	2	1.52	100		100	10	
7D	21	MON RT PACK TRIP OFF LT ON	1	2.60	100	100		10	
7D	22	MON RT PACK TRIP OFF LT OFF	2	2.00	100		100	10	
7D	23	MON RT WING BODY OVRHT LT ON	1	1.00	50			10	
7D	24	MON RT WING BODY OVRHT LT OFF	1	1.00	50			10	
7D	25	MON RT BLEED TRIP OFF LT ON	1	1.00	50			10	
7D	26	MON RT BLEED TRIP OFF LT OFF	1	1.00	50			10	
7D	27	SET RT BLEED SW TO ON	1	2.60	100	100		10	
7D	28	SET RT BLEED SW TO OFF	2	1.53	100		100	10	
7D	29	ACTUATE PACK/BLEED/ DUCT OVRHT TRIP RESET SW	1	2.60	100	100		10	CP
7D	30	SET ISOLATION VALVE SW TO OPEN	1	1.88	100	100		10	
7D	31	SET ISOLATION VALVE SW TO CLOSED	2	1.85	100	100		10	CP
7D	32	SET ISOLATION VALVE SW TO AUTO	3	1.77	100	100	100	10	P
7D	33	MON DUAL BLEED LT ON	1	1.53	100	100		10	CP
7D	34	MON DUAL BLEED LT OFF	1	1.77	100	100		10	
7D	35	MON LEFT RAM DOOR FULL OPEN LT ON	2	1.85	100	100		10	
7D	36	MON LEFT RAM DOOR	3	1.53	100		100	10	
			1	.28	100			10	
			1	.28	100			10	
			1	.28	100			10	
			1	.28	100			10	

TIME	DESCRIPTION	QTY	UNIT PRICE	TOTAL PRICE	AMOUNT PAID	AMOUNT DUE	DATE	REMARKS
7D	37 FULL OPEN LT OFF	1	.27	100				
7D	38 MON F OUTFLOW CLOSED LT ON	1	.27	100				
7D	39 MON RT RAM DOOR FULL OPEN LT ON	1	.28	100				
7D	40 MON RT RAM DOOR FULL OPEN LT OFF	1	.28	100				
7D	41 SET AIR TFMP SOURCE SEL SW TO SUPPLY DUCT	1 2	3.21 3.21	100 100	100			
7D	42 SET AIR TEMP SOURCE SEL SW TO PASS CABIN	1	3.21	100 100				
7D	43 MON TEMP INDIC	1 2 3	2.69 2.72 1	100 100 100				
7D	44 MON CONT CABIN AIR MIX VALVE INDIC	1 2	2.07 2.01	100 100				
7D	45 MON PASS CABIN AIR MIX VALVE INDIC	1 2 3	2.05 2.02 2.14	100 100 100				
7D	46 MON CONT CAB DUCT OVHT LT ON	1 2	.97 .94	100 100				
7D	47 MON CONT CAB DUCT OVHT LT OFF	1 2	.97 .94	100 100				
7D	48 MON PASS CAB DUCT OVHT LT ON	1	.94	100				
7D	49 MON PASS CAB DUCT OVHT LT OFF	1	.94	100				
7D	50 SET CONT CABIN TEMP SEL SW TO AUTO AND ADJUST TEMP	1 2 3	3.23 2.12 2.12	100 100 100				
7D	51 SET CONT CABIN TEMP SEL SW TO OFF	1 2	3.23 2.12	100 100				
7D	52 SET CONT CABIN TEMP SEL SW TO COOL	1 2	3.23 2.12	100 100				
7D	53 SET CONT CABIN TEMP SEL SW TO WARM	1 2	3.23 2.12	100 100				
7D	54 SET PASS CABIN TEMP SEL SW TO AUTO AND ADJUST TEMP	1 2 3	2.12 3.23 2.12	100 100 100				
7D	55 SET PASS CABIN TEMP SEL SW TO OFF	1 2	3.23 2.12	100 100				
7D	56 SET PASS CABIN TEMP SEL SW TO COOL	1 2	3.23 2.12	100 100				
7D	57 SET PASS CABIN TEMP SEL SW TO WARM	1 2	3.23 2.12	100 100				
7D	58 MON MASTER CAUTION AND AIR COND ANNUN LTS ON	1 2	.70 .54	100 100				
7D	59 ACTUATE MASTER CAUT SESET SW	1	2.14	100 100				
7D	60 MON AIR COND ANNUN LT ON	1	.54	100				
7D	61 MON AIR COND ANNUN LT OFF	1	.54	100				
7D	62 ACTUATE ANNUN PNL RECALL SW	1	2.14	100 100				
7D	63 CHECK THAT ISOLATION	1	1.35	100				

7E	20	SET PRESS MODE SEL	1	2.65	100	100	10	
		SW TO MAN-AC					10	
7E	21	SET PRESS MODE SEL	1	2.65	100	100	10	
		SW TO MAN-DC					10	
7E	22	MON AUTO FAIL LT ON	1	.97	100		10	CP
7E	23	MON AUTO FAIL LT OFF	1	.97	100		10	
7E	24	MON OFF SCHED	1	1.33	100		10	CP
		DESCENT LT ON					10	
7E	25	MON OFF SCHED	1	1.33	100		10	
		DESCENT LT OFF					10	
7E	26	MON STDBY LT ON	1	.66	100		10	CP
			2	.60	100		10	CP
7E	27	MON STDBY LT OFF	1	.66	100		10	
			2	.60	100		10	
7E	28	MON MANUAL LT ON	1	.65	100		10	CP
7E	29	MON MANUAL LT OFF	1	.65	100		10	
7E	30	MON MASTER CAUTION	1	.70	100		10	
		AND AIR COND ANNUN	2	.54	100		10	
		LTS ON					10	
7E	31	PRESS MASTER CAUTION	1	2.14	100	100	10	
		RESET SW					10	
7E	32	MON AIR COND ANNUN	1	.54	100		10	
		LT ON					10	
7E	33	MON AIR COND ANNUN	1	.54	100		10	
		LT OFF					10	
7E	34	PRESS ANNUN PNL	1	2.14	100	100	10	
		RESET SW					10	
7E	35	MON FLT/GRD SW SET	1	.54	100		10	
		TO FLIGHT					10	
7E	36	MON FLT/GRD SW SET	1	.54	100		10	
		TO GROUND					10	
7E	37	MON CABIN PRESS INDC	1	.7	100		10	
							10	
7F	01	SET ENG VIB PICKUP	1	1.91	100	100	10	CP
		SW TO TURB					10	
7F	02	SET ENG VIB PICKUP	1	1.91	100	100	10	
		SW TO INLET					10	
7F	03	PRESS ENG VIB TEST	1	1.44	10	100	10	
		SW	2	2.10	10	100	10	
			3	5.48	10		100	
7F	04	PRESS OIL QTY TEST	1	1.36	10	100	10	
		SW	2	2.02	10	100	10	
			3	1.36	10		100	
			4	4.25	10		100	
7F	05	MON NO 1 ENG LO OIL	1	.83	100		10	CP
		PRESS LT ON					10	
7F	06	MON NO 1 ENG LO OIL	1	.83	100		10	
		PRESS LT OFF					10	
7F	07	MON NO 1 ENG OIL	1	.83	100		10	
		FILTER BYPASS LT ON					10	
7F	08	MON NO 1 ENG OIL	1	.83	100		10	
		FILTER BYPASS LT OFF					10	
7F	09	MON NO 1 ENG OIL	1	2.05	80		10	CP
		PRESS INDIC	2	2.25	80		10	CP
			3	.44	50		10	
7F	10	MON NO 1 ENG OIL	1	2.05	80		10	
		TEMP INDIC	2	2.25	80		10	
			3	2.28	100		10	CP
			4	.44	50		10	
7F	11	MON NO 1 ENG OIL QTY	1	2.05	100		10	

		INDIC	2	2.25	100		10	
			3	.44	50		10	
7F	12	MON NO 1 ENG VIBRA-	1	2.05	90		10	
		TION AMPLITUDE INDIC	2	2.25	90		10	
			3	2.02	90		10	
			4	.44	50		10	
7F	13	MON NO 2 ENG LO OIL	1	.83	100		10	
		PRESS ANNUN LT ON					10	
7F	14	MON NO 2 ENG LO OIL	1	.83	100		10	
		PRESS ANNUN LT OFF					10	
7F	15	MON NO 2 ENG OIL	1	.83	100		10	
		FILTER BYPASS ANNUN					10	
		LT ON					10	
7F	16	MON NO 2 ENG OIL	1	.83	100		10	
		FILTER BYPASS ANNUN					10	
		LT OFF					10	
7F	17	MON NO 2 ENG OIL	1	2.05	100		10	
		PRESS INDIC	2	2.25	100		10	
			3	.44	50		10	
7F	18	MON NO 2 ENG OIL	1	2.05	100		10	
		TEMP INDIC	2	2.25	100		10	
			3	2.02	100		10	
			4	.44	50		10	
7F	19	MON NO 2 ENG OIL	1	2.05	100		10	
		QTY INDIC	2	2.25	100		10	
			3	2.08	100		10	
			4	.44	50		10	
7F	20	MON NO 2 ENG VIBR	1	2.05	90		10	
		AMPLITUDE INDIC	2	2.25	90		10	
			3	2.02	90		10	
			4	.44	50		10	
7F	21	MON NO 1 ENG N1 IND	1	2.02	100		10	
			2	2.52	100		10	
			3	.44	50		10	
7F	22	MON NO 2 ENG N1 IND	1	2.02	100		10	
			2	2.52	100		10	
			3	.44	50		10	
7F	23	MON NO 1 ENG N2 IND	1	2.02	100		10	
			2	2.52	100		10	
			3	10.	100		10	
			4	.44	50		10	
7F	24	MON NO 2 ENG N2 IND	1	2.02	100		10	
			2	2.52	100		10	
			3	10.	100		10	
			4	.44	50		10	
7F	25	MON ENG NO 1 EPR IND	1	2.24	100		10	
			2	2.02	100		10	
			3	30	5		5	
			4	.44	50		10	
7F	26	SET ENG NO 1 EPR BUG	1	5	20 100		10	
			2	5	20 100		10	
			3	2.32	20 100		10	
			4	2.32	20 100		10	
7F	27	MON ENG NO 1 EPR BUG	1	2.00	80		10	
			2	.76	50		10	
7F	28	SET ENG NO 2 EPR BUG	1	5.00	20 100		10	
			2	5.00	20 100		10	
			3	2.32	20 100		10	
			4	2.32	20 100		10	
7F	29	MON ENG NO 2 EPR BUG	1	2.00	80		10	

CP

CP

CP

CP

20C

20C

C

CP

C

P

			2	.76	50		10	
7F	30	MON ENG NO 2 EPR IND	1	2.24	100		10	
			2	2.02	100		10	
			3	.44	50		10	
			4	.30	5		5	
7F	31	MON ENG NO 1 EXH GAS	1	2.02	100		10	C
		TEMP IND	2	.44	50		10	
			3	.30	5		5	
7F	32	MON ENG NO 2 EXH GAS	1	2.02	100		10	C
		TEMP IND	2	.44	50		10	
			3	.30	5		5	
7F	33	MON ENG NO 1 FUEL	1	2.02	100		10	C
		FLOW INDIC	2	.44	50		10	
			3	.30	5		5	
7F	34	MON ENG NO 2 FUEL	1	2.02	100		10	C
		FLOW INDIC	2	.44	50		10	
			3	.30	5		5	
7G	01	SET NO SMOKING LT SW	1	1.80	100	100	10	P
		TO ON	2	2.71	100	100	10	
7G	02	SET NO SMOKING LT SW	1	1.80	100	100	10	
		TO AUTO	2	2.71	100	100	10	
7G	03	SET NO SMOKING LT SW	1	1.80	100	100	10	
		TO OFF	2	2.71	100	100	10	
7G	04	SET FASTEN SEAT BELT	1	1.71	100	100	10	P
		LT SW TO ON					10	
7G	05	SET FASTEN SEAT BELT	1	1.71	100	100	10	
		LT SW TO AUTO					10	
7G	06	SET FASTEN SEAT BELT	1	1.71	100	100	10	
		LT SW TO OFF	2	1.71	100	100	10	
7G	07	ADJUST PANEL LTS	1	2.17	100	100	10	CP
		BRIGHTNESS CONTROL	2	2.10	100	100	10	P
			3	2.73	100	100	10	P
7G	08	ADJUST BACKGROUND	1	2.08	100	100	10	P
		LTS BRIGHTNESS CONT					10	
7G	09	ADJUST CIRCUIT BRKR	1	3.31	100	100	10	P
		LTS BRIGHTNESS CONT	2	1.50	100	100	10	
7G	10	SET DOME LT SW TO	1	3.43	100	100	10	P
		DIM					10	
7G	11	SET DOME LT SW TO	1	3.43	100	100	10	
		OFF					10	
7G	12	SET DOME LT SW TO	1	3.43	100	100	10	
		BRIGHT					10	
7G	13	ADJUST FLOOD LT	1	2.09	100	100	10	P
		BRIGHTNESS CONT					10	
7G	14	ADJUST CONTROL STAND	1	3.13	100	100	10	P
		PANEL LTS BRIGHTNESS					10	
		CONT					10	
7G	16	SET LANDING LTS SW	1	2.20	100	100	10	P
		TO OFF	2	1.50	100	100	10	
7G	17	SET LANDING LIGHTS	1	2.20	100	100	10	
		SW TO ON	2	2.20	100	100	10	
7G	18	SET RUNWAY TURNOFF	1	2.25	100	100	10	P
		LTS SW TO ON					10	
7G	19	SET RUNWAY TURNOFF	1	2.25	100	100	10	
		LTS SW TO OFF					10	
7G	20	SET TAXI LTS SW TO	1	2.42	100	100	10	P
		ON					10	
7G	21	SET TAXI LTS SW TO	1	2.42	100	100	10	
		OFF					10	
7G	22	SET POSITION LTS SW	1	2.42	100	100	10	P

		TO ON BAT						10	
7G	23	SET POSITION LTS SW TO OFF	1	2.42	100	100		10	
7G	24	SET POSITION LTS SW TO ON	1	2.42	100	100		10	
			2	1.50	100	100		10	
7G	25	SET ANTI-COLLISION LTS SW TO OFF	1	2.44	100	100		10	P
			2	2.44	100	100		10	
7G	26	SET ANTI-COLLISION LTS SW TO OFF	1	2.44	100	100		10	
			2	2.44	100	100		10	
7G	27	SET WING LTS SW TO ON	1	2.47	100	100		10	P
7G	28	SET WING LTS SW TO OFF	1	2.47	100	100		10	
7G	29	SET WHEEL WELL LTS SW TO ON	1	2.48	100	100		10	P
7G	30	SET WHEEL WELL LTS SW TO OFF	1	2.48	100	100		10	
7G	31	SET LTS TEST SW TO TEST	1	2.35	100	100		10	P
			2	10	10	100		10	
7G	32	SET LTS TEST SW TO DIM	1	2.35	100	100		10	
7G	33	SET LTS TEST SW TO OFF	1	2.35	100	100		10	
7G	34	SET EMER EXIT LTS SW TO OFF	1	1.90	100	100		10	P
			2	1.99	100	100		10	P
			3	1.90	100	100		10	
7G	35	SET EMER EXIT LTS SW TO ARMED	1	1.90	100	100		10	
			2	1.99	100	100		10	
7G	36	SET EMER EXIT LTS SW TO ON	1	1.90	100	100		10	
			2	1.99	100	100		10	
7G	37	MON EMER EXIT LTS NOT ARMED LT ON	1	.54	100			10	P
7G	38	MON EMER EXIT LTS NOT ARMED LT OFF	1	.54	100			10	
7G	40	MON MASTER CAUTION AND OVHD ANNUN LTS ON	1	.20	100	100		10	
			2	.54	100	100		10	
7G	41	PRESS MASTER CAUT RESET SW	1	2.14	100	100		10	
7G	42	MON OVHD ANNUN LT ON	1	.54	100			10	
7G	43	MON OVHD ANNUN LT OFF	1	.54	100			10	
7G	44	PRESS ANNUN PNL RECALL SW	1	2.14	100	100		10	
7G	46	MON INSTRUMENT LTS ILLUMINATED BY LT TEST SW	1	10	90			10	
7G	47	MON INST LTS DIMMED WHEN LT TEST SW SET TO DIM						10	
7G	48	MON SEAT BELT AND NO SMOKING LTS SWDS SET TO AUTO	1	1.27	100			10	P
7G	49	MON EMER EXIT LT SW SET TO OFF	1	1.28	100			10	
7G	50	MON SEAT BELT LT SW SET TO OFF	1	1.28	100			10	P
7G	51	MON SEAT BELTS, NO SMOKING SWS SET ON	1	1.27	100			10	
7H	01	MON FLT CREW OXY	1	2.81	100			10	CP

		PRESS INDIC							10	
7H	02	MON PASS OXY PRESS	1	2.03	100				10	CP
		INDIC							10	
7H	03	MON PASS OXY ON LT	1	1.59	100				10	CP
		ON							10	
7H	04	MON PASS OXY ON LT	1	1.59	100				10	
		OFF							10	
7H	05	SET PASS OXY SW TO	1	3.29	100	100			10	CP
		ON							10	
7H	06	SET PASS OXY SW TO	1	3.29	100	100			10	
		NORMAL							10	
7H	07	ACTUATE CREW OXY	1	1.40	100	100			10	
		SHUTOFF VALVE							10	
7H	08	SET OXY EMERGENCY	1	1.30	100	100			10	
		LEVER TO ON							10	
7H	09	SET OXY EMERGENCY	1	1.30	100	100			10	
		LEVER TO OFF							10	
7H	10	SET OXY DILUTER	1	1.40	100	100			10	
		LEVER TO NORMAL							10	
7H	11	SET OXY DILUTER	1	1.40	100	100			10	
		LEVER TO 100 PCT							10	
7H	12	MON OXY FLOW INDIC	1	1.5	100				10	
7H	13	SET OXY SUPPLY SW	1	1.40	100	100			10	
		TO ON							10	
7H	14	SET OXY SUPPLY SW	1	1.40	100	100			10	
		TO OFF							10	
7H	15	OPEN EMERGENCY OXY							10	
		MAN ACTUATION ACCESS							10	
		DOOR							10	
7H	16	PULL EMERGENCY OXY							10	
		MAN ACTUATION HANDLE							10	
7H	17	POT ON OXY MASK	1	4.0	100	100	100		10	
7H	18	TAKE OFF OXY MASK	1	4.0	100	100	100		10	
		AND STOW							10	
7H	19	CHECK PORTABLE OXY	1	5.0	100	100	100		10	
		BOTTLE PRESS AND							10	
		MASK							10	
7H	20	SET CREW OXY VALVE	1	2.0	100	100			10	
		TO OPEN							10	
7H	21	MON PASS OXY QTY	1	2.0	100				10	
		INDIC							10	
7H	22	INHALE AND CHECK	1	4.0	100				10	
		THAT NO AIR OR OXY							10	
		IS SUPPLIED							10	
7H	23	INHALE AND CHECK	1	4.0	100				10	
		THAT COCKPIT AIR IS							10	
		SUPPLIED							10	
7H	24	INHALE AND CHECK	1	4.0	100	100			10	
		THAT OXY IS SUPPLIED							10	
7H	25	INHALE AND CHECK	1	4.0	100	100			10	
		THAT CONSTANT OXY							10	
		PRESSURE SUPPLIED							10	
7J	01	SET WING ANTI-ICE SW	1	1.79	100	100			10	CP
		TO GRD TEST	2	2.76	100	100			10	
7J	02	SET WING ANTI-ICE SW	1	1.79	100	100			10	
		TO ON	2	2.76	100	100			10	
7J	03	SET WING ANTI-ICE SW	1	1.79	100	100			10	
		TO OFF	2	2.76	100	100			10	
			3	1.79	100		100		10	
7J	04	MON WING ANTI-ICE	1	.56	100				10	CP

			L VALVE OPEN LT ON	2	.53	100			10		
7J	05	MON WING ANTI-ICE	L VALVE OPEN LT OFF	1	.56	100			10		CP
			L VALVE OPEN LT ON	2	.53	100			10		
7J	06	MON WING ANTI-ICE	R VALVE OPEN LT ON	1	.56	100			10		
			R VALVE OPEN LT OFF	2	.53	100			10		
7J	07	MON WING ANTI-ICE	R VALVE OPEN LT ON	1	.56	100			10		
			R VALVE OPEN LT OFF	2	.53	100			10		
7J	08	SET ENG NO.1 ANTI-ICE SW TO ON		1	1.49	100	100		10		CP
				2	2.76	100	100		10		
				3	1.68	100	100		10		CP
7J	09	SET ENG NO.1 ANTI-ICE SW TO OFF		1	1.50	100	100		10		CP
				2	2.76	100	100		10		CP
				3	1.68	100	100		10		CP
				4	1.50	100		100	10		
7J	10	SET ENG NO.2 ANTI-ICE SW TO ON		1	1.50	100	100		10		CP
				2	2.76	100	100		10		
				3	2.01	100	100		10		CP
7J	11	SET ENG NO.2 ANTI-ICE SW TO OFF		1	1.50	100	100		10		
				2	2.76	100	100		10		
				3	2.01	100	100		10		
				4	1.50	100		100	10		
7J	12	MON ENG NO.1 L VALVE OPEN LT ON		1	.54	100			10		CP
			OPEN LT OFF						10		
7J	13	MON ENG NO.1 L VALVE OPEN LT ON		1	.54	100			10		
			OPEN LT OFF						10		
7J	14	MON ENG NO.1 R VALVE OPEN LT ON		1	.54	100			10		CP
			OPEN LT OFF						10		
7J	15	MON ENG NO.1 R VALVE OPEN LT ON		1	.54	100			10		
			OPEN LT OFF						10		
7J	16	MON ENG NO.1 COWL VALVE OPEN LT ON		1	.54	100			10		
			VALVE OPEN LT OFF						10		
7J	17	MON ENG NO.1 COWL VALVE OPEN LT ON		1	.54	100			10		
			VALVE OPEN LT OFF						10		
7J	18	MON ENG NO.2 L VALVE OPEN LT ON		1	.54	100			10		
			OPEN LT OFF						10		
7J	19	MON ENG NO.2 L VALVE OPEN LT ON		1	.54	100			10		CP
			OPEN LT OFF						10		
7J	20	MON ENG NO.2 R VALVE OPEN LT ON		1	.54	100			10		
			OPEN LT OFF						10		
7J	21	MON ENG NO.2 R VALVE OPEN LT ON		1	.54	100			10		
			OPEN LT OFF						10		
7J	22	MON ENG NO.2 COWL VALVE OPEN LT ON		1	.54	100			10		
			VALVE OPEN LT OFF						10		
7J	23	MON ENG NO.2 COWL VALVE OPEN LT ON		1	.54	100			10		
			VALVE OPEN LT OFF						10		
7J	24	SET PITOT STATIC SYS A HT SW TO ON		1	2.75	100	100		10		CP
				2	1.42	100	100		10		CP
				3	1.42	100		100	10		
7J	25	SET PITOT STATIC SYS A HT SW TO OFF		1	2.75	100	100		10		
				2	1.42	100	100		10		
				3	1.42	100		100	10		
7J	26	SET PITOT STATIC SYS B HT SW TO ON		1	2.75	100	100		10		
				2	1.42	100	100		10		
				3	1.42	100		100	10		
7J	27	SET PITOT STATIC SYS B HT SW TO OFF		1	2.75	100	100		10		
				2	1.42	100	100		10		
				3	1.42	100		100	10		
7J	28	MON CAPT PITOT HTR LT ON		1	1.13	100			10		CP
				2	1	50			10		
7J	29	MON CAPT PITOT HTR		1	1.13	100			10		

		LT OFF					10
7J	30	MON CAPT STATIC 1	1	1.13	100		10
		AUX P/S HTF LT ON	2	1	50		10
7J	31	MON CAPT STATIC 1	1	1.13	100		10
		AUX P/S HTR LT OFF					10
7J	32	MON L ELEV PITOT HTR	1	1.13	100		10
		LT ON	2	1	50		10
7J	33	MON L ELEV PITOT HTR	1	1.13	100		10
		LT OFF					10
7J	34	MON F/O PITOT HTR	1	1.14	100		10
		LT ON	2	1	50		10
7J	35	MON F/O PITOT HTR	1	1.14	100		10
		LT OFF					10
7J	36	MON F/O STATIC 2	1	1.14	100		10
		AUX P/S HTR LT ON	2	1	50		10
7J	37	MON F/O STATIC 2	1	1.14	100		10
		AUX P/S HTR LT OFF					10
7J	38	MON R ELEV PITOT	1	1.14	100		10
		HTR LT ON	2	1	50		10
7J	39	MON R ELEV HTR LT	1	1.14	100		10
		OFF					10
7J	40	MON MASTER CAUTIONAND1		.70	100 100		10
		ANTI-ICE ANNUN LTS	2	.54	100 100		10
		ON					10
7J	41	PRESS MASTER CAUTION	1	2.14	100 100		10
		RESET SW					10
7J	42	MON ANTI-ICE ANNUN	1	.54	100		10
		LT ON					10
7J	43	MON ANTI-ICE ANNUN	1	.54	100		10
		LT OFF					10
7J	44	PRESS ANNUN PNL	1	2.14	100 100		10
		RECALL SW					10
7J	45	MON PITOT STATIC SYS	1	1.47	100		10
		A HT SW SET TO ON					10
7J	46	MON PITOT STATIC SYS	1	.75	100		10
		B HT SW SET TO ON					10
7J	47	MON PITOT STATIC SYS	1	1.47	100		10
		A HT SW SET TO OFF					10
7J	48	MON PITOT STATIC SYS	1	.75	100		10
		B HT SW SET TO OFF					10
7J	49	MON ENG 1 ANTI-ICE	1	1.42	100		10
		SW TO OFF					10
7J	50	MON ENG 2 ANTI-ICE	1	.76	100		10
		SW SET TO OFF					10
7K	01	PUSH L RAIN REPEL SW	1	2.31	100	100	10
7K	02	PUSH R RAIN REPEL SW	1	1.38	100	100	10
7K	03	SET WINDSHIELD WIPER	1	2.37	80	100	10
		SEL SW TO OFF					10
7K	04	SET WINDSHIELD WIPER	1	2.37	80	100	10
		SEL SW TO LOW					10
7K	05	SET WINDSHIELD WIPER	1	2.37	80	100	10
		SEL SW TO HIGH					10
7K	06	SET WINDSHIELD WIPER	1	2.37	80	100	10
		SEL SW TO PARK					10
7K	07	SET WINDOW HEAT SWS	1	4.22	100 100		10
		TO ON					10
7K	08	SET WINDOW HEAT SWS	1	4.22	100 100		10
		TO OFF					10
7K	09	MON RAIN REPELLANT	1	2.0	100		10
		QTY INDIC					10

CP

P

P

P

P

P

P

P

P

CP

7K	10	CHECK WINDSHIELD WIPER SWAS SET TO OFF	1	1.19	100		10		P
7K	11	MON WINDOW HEAT ON LTS GREEN	1	1.14	100		10		CP
7K	12	MON WINDOW HEAT ON LTS OFF	1	1.14	100		10		
7K	13	MON WINDOW OVRHT LTS ON	1	1.81	100		10		CP
7K	14	MON WINDOW OVRHT LTS OFF	1	1.81	100		10		
7K	15	ACT WINDOW OVRHT TEST SW	1	2.04	100		10		CP
7K	16	SET WINDOW HT SW OFF	1	1.2	20	100	10		
7L	01	MON APU EXHAUST TEMP GAGE INDIC	1	2.09	100		10		P
7L	02	MON APU AC AMPS IND	1	2.09	100		10		
7L	03	MON APU LOW OIL QTY LT ON	1	.85	100		10		P
7L	04	MON APU LOW OIL QTY LT OFF	1	.85	100		10		P
7L	05	MON APU LOW OIL PRESS LT ON	1	.54	100		10		
7L	06	MON APU LOW OIL PRESS LT OFF	1	.54	100		10		P
7L	07	MON APU HIGH OIL TEMP LT ON	1	.54	100		10		P
7L	08	MON APU HIGH OIL TEMP LT OFF	1	.54	100		10		
7L	09	MON APU OVRSPD LT ON	1	.54	100		10		P
7L	10	MON APU OVRSP LT OFF	1	.54	100		10		
7L	11	SET APU SW TO OFF	1	3.59	100	100	10		P
			2	2.73	100	100	10		P
			3	2.57	100	100	10		P
			4	2.29	100	100	10		P
7L	12	SET APU SW TO ON	1	3.59	100	100	10		
			2	2.73	100	100	10		
			3	2.57	100	100	10		
			4	2.29	100	100	10		
7L	13	SET APU SW TO START- MOMENTARY ACTION	1	3.59	100	100	10		
			2	2.73	100	100	10		
			3	2.57	100	100	10		
			4	2.29	100	100	10		
7L	14	MON MASTER CAUTION AND APU ANNUN LTS ON	1	.73	100		10		
7L	15	PRESS MASTER CAUTION RESET SW	1	2.14	100	100	10		
7L	16	MON APU ANNUN LT ON	1	.54	100		10		
7L	17	MON APU ANNUN LT OFF	1	.54	100		10		
7L	18	PRESS ANNUN RNL RECALL SW	1	2.14	100	100	10		
7L	19	OPEN CB C6 ON P6-5 PANEL	1	5.	100	100	10		
7L	20	MON APU START SW SET TO OFF	1	.75	100		10		
7L	21	SET APU START SW TO OFF	1	1.5	100	100	10		
7L	22	SET APU START SW ON	1	2.29	50	100	10		

7L	23 MON APU WARN LTS	1	.88	100		10
7M	01 SET ENG NO.1 START	1	3.0	80	100	10
	SW TO OFF	2	2.43	80	100	10
		3	3.54	80	100	10
		4	1.74	80	100	10
7M	02 SET ENG NO.1 START	1	3.0	80	100	10
	SW TO GRD	2	2.43	80	100	10
		3	3.54	80	100	10
		4	1.74	80	100	10
7M	03 SET ENG NO.1 START	1	3.0	80	100	10
	SW TO FLT	2	2.43	80	100	10
		3	3.54	80	100	10
		4	1.74	80	100	10
7M	04 SET ENG NO.2 START	1	3.0	80	100	10
	SW TO OFF	2	2.43	80	100	10
		3	3.54	80	100	10
		4	1.74	80	100	10
7M	05 SET ENG NO.2 START	1	3.0	80	100	10
	SW TO GRD	2	2.43	80	100	10
		3	3.54	80	100	10
		4	1.74	80	100	10
7M	06 SET ENG NO.2 START	1	3.0	80	100	10
	SW TO FLT	2	2.43	80	100	10
		3	3.54	80	100	10
		4	1.74	80	100	10
7M	07 SET ENG NO 1 START	1	2.51	50	100	10
	LEVER TO START					10
7M	08 SET ENG NO 1 START	1	3.00	50	100	10
	LEVER TO CUTOFF	2	2.80	50	100	10
		3	3.24	50	100	10
		4	3.24	50	100	10
7M	09 SET ENG NO 2 START	1	2.51	50	100	10
	LEVER TO START					10
7M	10 SET ENG NO 2 START	1	3.24	50	100	10
	LEVER TO CUTOFF	2	2.51	50	100	10
		3	2.51	50	100	10
7M	11 MON ENG START SWAS	1	.52	100		10
	IN FLT POS					10
7M	12 CHECK ENG NO.1 START	1	2.41	100		10
	SW SET TO OFF	2	1.50	100		10
7M	13 CHECK THAT ENG NO.2	1	2.02	100		10
	START SW SET TO OFF	2	.78	100		10
7M	14 CHECK THAT ENG START	1	1.30	100		10
	LEVERS IN OFF POS	2	.78	100		10
7M	15 MON ENG 2 START LVR	1	1.30	100		10
	AUTOMATICALLY MOVED	2	.78	100		10
	TO OFF					10
7M	16 MON ENG 1 START LVR	1	1.30	100		10
	AUTOMATICALLY MOVED	2	.78	100		10
	TO OFF					10
7M	17 SET ENG NO.1 START	1	2.50	100	100	10
	SET TO OFF					10
7M	18 SET ENG NO.2 START	1	1.50	100	100	10
	SW TO OFF					10
7P	01 SET ENG NO.1 OVRHT	1	2.46	100	100	10
	DETEC SW TO NORMAL					10
7P	02 SET ENG NO.1 OVRHT	1	2.46	100	100	10
	DETEC SW TO FIRE					10
7P	03 SET ENG NO.2 OVRHT	1	1.63	100	100	10
	DETEC SW TO NORMAL					10

P
P

P
P
P
P

P
P

7P	04	SET ENG NO.2 OVRHT	1	1.63	100	100	10	
		DETEC SW TO FIRE					10	
7P	05	MOV ENG NO.1 OVRHT	1	.90	100		10	P
		LT ON	2	.54	100		10	
7P	06	MON ENG NO.1 OVRHT	1	.90	100		10	
		LT OFF	2	.54	100		10	
7P	07	MON ENG NO.2 OVRHT	1	.90	100		10	
		LT ON	2	.54	100		10	
7P	08	MON ENG NO.2 OVRHT	1	.90	100		10	
		LT OFF	2	.54	100		10	
7P	09	SET OVRHT TEST SW TO	1	2.20	100	100	10	
		OVRHT	2	1.62	100	100	10	
7P	10	SET OVRHT TEST SW TO	1	.50	100	100	10	
		FIRE					10	
7P	11	ACTUATE EXT TEST SW	1	1.63	25	100	10	P
7P	12	MON EXT TEST LTS ON	1	.54	75		10	P
7P	13	MON WHEEL WELL FIRE	1	1.24	100		10	P
		WARNING LT ON					10	
7P	14	MON WHEEL WELL FIRE	1	1.24	100		10	
		WARNING LT OFF					10	
7P	15	MON ENG NO.1 FIRE	1	.91	100		10	P
		WARNING LT ON	2	.54	100		10	
			3	2.57	100		10	P
			4	5.0	100		10	7P
7P	16	MON ENG NO.1 FIRE	1	.91	100		10	
		WARNING LT OFF	2	.54	100		10	
			3	15.	100		10	7P
7P	17	PULL ENG NO.1 FIRE	1	1.87	100	100	10	P
		WARNING SW HANDLE UP	2	1.87	100	100	10	7P
		WARNING SW HANDLE UP					10	
7P	18	ROTATE ENG NO.1 FIRE	1	2.13	100	100	10	P
		WARNING SW HANDLE TO	2	2.13	100	100	10	7P
		LEFT					10	
7P	19	ROTATE ENG NO.1 FIRE	1	2.33	100	100	10	P
		WARNING SW HANDLE TO					10	
		RIGHT					10	
7P	20	ACTUATE ENG NO.1					10	
		FIRE WARNING OVERRIDE					10	
		SW					10	
7P	21	MON ENG NO.2 FIRE	1	.80	100		10	P
		WARNING LT ON	2	.54	100		10	
7P	22	MON ENG NO.2 FIRE	1	.54	100		10	
		WARNING LT OFF	2	.80	100		10	
7P	23	PULL ENG NO.2 FIRE	1	1.73	100	100	10	P
		WARNING SW HANDLE UP	2	1.91	100	100	10	P
7P	24	ROTATE ENG NO.2 FIRE	1	2.33	100	100	10	P
		WARNING SW HANDLE TO	2	2.53	100	100	10	
		LEFT	3	2.13	100	100	10	P
7P	25	ROTATE ENG NO.2 FIRE	1	2.53	100	100	10	
		WARNING SW HANDLE TO	2	2.33	100	100	10	
		RIGHT	3				10	
7P	26	ACTUATE ENG NO.2					10	
		FIRE WARNING OVRD					10	
		SW					10	
7P	27	MON L BOTTLE	1	.58	100		10	P
		DISCHARGE LT ON	2	.27	100		10	P
7P	28	MON L BOTTLE	1	.58	100		10	
		DISCHARGE LT OFF	1	.27	100		10	
7P	29	MON R BOTTLE	1	.58	100		10	
		DISCHARGE LT ON	2	.26	100		10	P

7P	30	MON R BOTTLE	1	.58	100		10	
		DISCHARGE LT OFF	2	.26	100		10	
7P	31	MON APU FIRE	1	.98	100		10	P
		WARNING LT ON	2	.54	100		10	
7P	32	MON APU FIRE	1	.98	100		10	
		WARNING LT OFF	2	.54	100		10	
7P	33	PULL APU FIRE	1	1.16	100	100	10	P
		WARNING SW HANDLE UP	2	1.89	100	100	10	P
7P	34	ROTATE APU FIRE	1	2.33	100	100	10	P
		WARNING SW HANDLE	2	2.53	100	100	10	P
		TO LEFT	3	2.13	100	100	10	P
7P	35	ROTATE APU FIRE	1	2.33	100	100	10	
		WARNING SW HANDLE	2	2.53	100	100	10	
		TO RIGHT	3				10	
7P	36	ACTUATE APU FIRE					10	
		WARNING OVERRIDE SW					10	
7P	37	MON APU BOTTLE	1	.27	100		10	P
		DISCHARGED LT ON					10	
7P	38	MON APU BOTTLE	1	.27	100		10	
		DISCHARGED LT OFF					10	
7P	39	MONITOR FIRE ALARM	1	.71	100		10	100 P
		WARNING LT AND BELL					10	
7P	40	PULL FIRE ALARM	1	1.50	100	100	10	
		BELL CUTOFF SW	2	1.20	100	100	10	P
			3	.91	100	100	10	P
7P	41	MON MASTER CAUTION	1	.73	100		10	
		AND OVHT/DET ANNUN					10	
		LTS ON					10	
7P	42	PRESS MASTER CAUTION	1	2.14	100	100	10	
		RESET SW					10	
7P	43	MON OVHT/DET ANNUN	1	.54	100		10	
		LT ON					10	
7P	44	MON OVHT/DET ANNUN	1	.54	100		10	
		LT OFF					10	
7P	45	PRESS ANNUN PNL	1	2.14	100	100	10	
		RECALL SW					10	
7P	46	MON FIRE WARNING	1	.54	100		10	100 P
		BELL AND ANNUN LTS					10	
		ON					10	
7P	47	PRESS FIRE WARNING	1	1.35	100	100	10	P
		ANNUN LT SW					10	
7P	48	MON ENG NO.1 OVRHT	1	.90	100		10	
		DETECT SW ON NORMAL					10	
7P	49	MON ENG NO.2 OVRHT	1	.90	100		10	
		DETECT SW ON NORMAL					10	
7P	50	MON APU DETECT INOP	1	.90	100		10	
		LT ON	2	.54	100		10	
7P	51	MON APU DETECT INOP	1	.90	100		10	
		LT OFF					10	
7P	52	SET OVHT TEST SW	1	.50	100	100	10	
		TO OFF					10	
7P	53	MONITOR LIGHT + BELL	1	.54			10	100 1007P
		OFF					10	
7Q	01	PRESS CABIN DOOR	1	2.66	50	100	10	
		UNLOCK SW	2	2.44	50	100	10	P
			3	3	50	100	10	
7Q	02	MON CABIN DOOR LOCK	1	1.29	100		10	P
		LT ON					10	
7Q	03	MON CABIN DOOR LOCK	1	1.29	100		10	
		LT OFF					10	

7Q	04	MON MASTER CAUTION AND DOORS ANNUN LTS	1	.73	100		10	
7Q	05	PRESS MASTER CAUT RESET SW	1	2.14	100	100	10	
7Q	06	MON DOORS ANNUN LT ON	1	.54	100		10	
7Q	07	MON DOORS ANNUN LT OFF	1	.54	100		10	
7Q	08	PRESS ANNUN PNL RECALL SW	1	2.14	100	100	10	
7Q	09	MON FWD ENTRY LT ON	1	1.55	100		10	CP
7Q	10	MON FWD ENTRY LT OFF	1	1.55	100		10	
7Q	11	ACTUATE FWD ENTRY LT TEST SW	1	2.46	100	100	10	P
7Q	12	MON AFT ENTRY LT ON	1	1.55	100		10	
7Q	13	MON AFT ENTRY LT OFF	1	1.55	100		10	
7Q	14	ACTUATE AFT ENTRY LT TEST SW	2	1.12	100		10	
7Q	14	ACTUATE AFT ENTRY LT TEST SW	1	1.38	100	100	10	P
7Q	15	MON AIR STAIRS LT ON	1	1.12	100		10	CP
7Q	16	MON AIR STAIRS LT OFF	1	1.12	100		10	
7Q	17	ACTUATE AIR STAIRS LT TEST SW	1	1.41	100	100	10	P
7Q	18	MON EQUIP / TIRE BURST LT ON	1	1.12	100		10	
7Q	19	MON EQUIP / TIRE BURST LT OFF	1	1.12	100		10	
7Q	20	ACTUATE EQUIP / TIRE BURST TEST SW	1	1.38	100	100	10	P
7Q	21	MON FWD CARGO LT ON	1	1.12	100		10	CP
7Q	22	MON FWD CARGO LT OFF	1	1.12	100		10	
7Q	23	ACTUATE FWD CARGO LT TEST SW	1	1.39	100	100	10	P
7Q	24	MON AFT CARGO LT ON	1	1.12	100		10	
7Q	25	MON AFT CARGO LT OFF	1	1.12	100		10	
7Q	26	ACTUATE AFT CARGO LT TEST SW	1	1.38	100	100	10	P
7Q	27	MON FWD SERVICE LT ON	1	1.12	100		10	CP
7Q	28	MON FWD SERVICE LT OFF	1	1.12	100		10	
7Q	29	ACTUATE FWD SERVICE LT TEST SW	1	1.40	100	100	10	P
7Q	30	MON AFT SERVICE LT ON	1	1.12	100		10	
7Q	31	MON AFT SERVICE LT OFF	1	1.12	100		10	
7Q	32	ACTUATE AFT SERVICE LT TEST SW	1	1.38	100	100	10	P
8A	01	VIEW RUNWAY AHEAD	1	2.0	100		10	
			2	.75	70		5	
			3	.26	50		5	
8A	02	CAPT VIEW THRU NO.1 WINDOW	1	.50	70		5	
			2	1.40	70		5	
			3	.60	70		5	
			4	.45	70		5	
8A	03	F.O. VIEW THRU NO.1 WINDOW	1	2.0	100		5	
			2	1.0	10		5	

		3	240	10					5
		4	26	10					5
8A	04	1	100	75					5
		2	110	75					5
		3	15	75					5
		4	30	75					5
8A	05	1	10	25					5
		2	5	25					5
		3	30	25					5
		4	60	25					5
8A	06	1	300	25					5
		2	110	25					5
		3	26	70					5
		4	134	25					5
8A	07	1	134	25					5
		2	78	25					5
		3	150	25					5
		4	10	25					5
8A	08	1	285	25					5
		2	75	25					5
		3	90	25					5
		4	20	25					5
8A	09	1	110	25					5
		2	60	25					5
		3	5	25					5
		4	30	25					5
8A	10	1	5	25					5
		2	10	25					5
		3	15	25					5
		4	20	25					5
8A	11	1	25	25					5
		2	30	25					5
		3	35	25					5
		4	40	25					5
8A	12	1	45	25					5
		2	50	25					5
		3	55	25					5
		4	60	25					5
8A	13	1	100	25					5
		2	200	25					5
		3	300	25					5
		4	400	25					5
8A	14	1	500	25					5
		2	1000	15					5
		3	1500	15					5
		4	2000	15					5
8A	15	1	26	80					60
		2	30	80					60
		3	10	80					60
8B	01	1	15		20		100		10
		2	2.0		100	50	100		10
8B	02	1	4		10		100		10
		2	5.9		10		100		10
		3	5.9		10	100			10
8B	03	1	2.0		100				10
		2	4.0		100				10
		3	6.0		100				10
		4	8.0		100				10
8B	04	1	2.0		100				10
		2	4.0		100				10

			3	8.0	100			10
			4	12.0	100			10
8B	05	FIND CHECKLIST IN	1	10.0	100	50	50	10
		HANDBOOK	2	5.0	100	50	50	10
8B160007		RETRIEVE/REVIEW						10
		APPROACH PLATE						10
8B160008		REVIEW/ACKNOWLEDGE						10
		APPROACH PLATE DATA						10
8B	08	STOW CHECKLIST	1	3.0	50	50	100	10
8B	06	RETRIEVE CHARTS	1	6	20		100	10
		APPROACH PLATES	2	6	20		100	10
8B040001		REVIEW DEPARTURE	1	10.91	100		100	10
		CHART	2	10.91	100	100		10
8B	07	STOW CHARTS	1	5.91			100	10
8B010001		RETRIEVE/REVIEW	1	20	100		100	10
		COCPIT SAFETY INSPEC						10
		CHECKLIST						10
8B010002		REFER TO DATA TO	1	5.	100	100	100	10
		DETERMINE NAV AND						10
		COMM FREQS						10
8B010003		CHECK THAT MANIFEST,	1	15.	100	100	100	10
		WEIGHT SHEET, AND						10
		RELEASE PAPERS OK						10
8B010004		RETRIEVE FLIGHT	1	3.0	50	100	50	10
		PLANNING REF. DATA						10
		MANUAL						10
8B010005		STOW FLIGHT PLANNING	1	2.0	50	100	50	10
		REF. DATA MANUAL						10
8B010006		REFER TO REF. DATA	1	30.	100	100	100	10
		AND COMPUTE TAKEOFF						10
		EPR BUG SETTING						10
		VALUE						10
8B010007		REFER TO REF. DATA	1	30.	100	100	100	10
		AND COMPUTE TAKEOFF						10
		V1 AND VR BUG SET						10
		VALUES						10
8B090001		READ NEXT ITEM ON	1	1.	100			10
		CHECKLIST ON CONTROL						10
		COLUMN PLACARD						10
8B090002		REVIEW CHARTS TO	1	5.	100	100		10
		DETERMINE SPARTAN-						10
		BURG VOR FREQ						10
8B090003		REVIEW CHARTS TO	1	5	100	100		10
		DETERMINE GORDONS-						10
		VILLE VOR FREQ						10
8B110001		REVIEW CHARTS TO	1	5	100	100		10
		DETERMINE PULASKI						10
		VOR FREQ						10
8B140001		REVIEW CHARTS TO	1	5	100	100		10
		DETERMINE TOCCOA						10
		VOR FREQ						10
8B140002		REVIEW CHARTS TO	1	5	100	100		10
		DETERMINE NORCROSS						10
		VOR FREQ						10
8B140003		REVIEW CHARTS TO	1	5	100	100		10
		DETERMINE CHATTA-						10
		NOOGA VOR FREQ						10
8B160001		DETERMINE GO-AROUND	1	5	100	50	50	10
		EPR BUG SET VALUE						10
8B200001		COMPLETE AIRPLANE	1	30	100	50	50	10

P27
CP14
P28

8B0903

8B160002	AND FLIGHT FORMS	1	5	100	50	50		10
	DETERMINE LANDING							10
	V-REF BUG SET VALUE							10
8B160003	REVIEW CHARTS/PLATES	1	5	100	50	50		10
	TO DETERMINE NAVAID	2	19	100	100	100		10
	APP FREQS							10
8B020001	RETRIEVE LOADING	1	3	100		100		10
	MANIFEST							10
8B020002	REVIEW LOADING MANI-	1	3	100		100		10
	FEST TO DETERMINE							10
	ZERO FUEL WT							10
8B020003	STOW MANIFEST	1	2	100		100		10
8C 01	FASTEN SEAT BELT AND	1	2.20		100	100		10
	HARNES							10
8C 02	ADJUST SEAT TO ALIGN	1	10.0	100	100	100	100 100	10
	BALLS							10
8C 03	TAKE SEAT	1	3.0	100	100	100	100 100	10
8D 01	CHECK EMERGENCY	1	10.	100	100	100		10
	EQUIPMENT							10
8D 02	CHECK C02 FIRE EXT	1	5.	100	100	100		10
	BOTTLE							10
8D 03	CHECK FIRE AXE	1	2.0	100				10
	INSTALLED							10
8D 04	CHECK ESCAPE STRAPS	1	1.5	100		100		10
8E 01	CHECK HEADSET	1	1.5	100	100			10
8E 02	CHECK SUNVISORS AND	1	3.0	100	100	100		10
	SMOKE GOGGLES STOWED							10
8E 03	PUT ON HEADSET	1	3.0	100	100	100		10
8E 04	RETRIEVE AND PUT ON	1	4	50	100			10
	SMOKE GOGGLES	2	4	50		100		10
8F DUMMY	DUMMY TASK	1	1					10
SUBSYSTEMS								
1A	VHF-1 (FFD)			23-21-02				
1B	VHF-2 (FFD)			23-21-02				
1F	INTERPHONE			23-42-03				
1G	PUBLIC ADDRESS			23-31-00				
1H	GROUND CREW CALL			23-43-00				
1J	VOICE RECORDER			23-71-02				
1M	SELCAL			23-28-00				
1N	TRANSPONDER			34-53-02				
1P	VOICE							
1Q	VHF-1 (AFD)			23-21-02				
1R	VHF-2 (AFD)			23-21-02				
1S	VHF-3 (AFD)			23-21-02				
1T	LOUDSPEAKER							
2H	ADV GDC CNTRL SYS (AGCS)							
2J	ELEC ATT DIREC INDIC (EADI)							
2K	MULTI-FUNCTION DISPLAY (MFD)							
2L	NAV CNTRL DISP UNIT (NCDU)							
3A	AIRSPEED INDIC							
3F	MACH INDIC			34-13-06				
3H	CORRECTED BARO ALTITUDE INDIC			34-13-04				
3J	RADIO ALTIMETER			34-30-00				
3K	ALTITUDE ALERT SYS			34-16-00				
3L	VERTICAL SPEED INDIC			34-13-01				
3M	ELAPSED TIME INDIC			31-25-00				
3N	CLOCK			31-25-00				
3P	STANDBY ATTITUDE REF INDIC			34-24-00				
3Q	FLIGHT RECORDER			31-31-02				
3R	FLIGHT DIRECTOR INDIC (FDI)			34-41-05				

P220

3S	COURSE INDIC (CI)	34-41-06
3U	TOTAL AIR TEMP INDIC	34-13-07
3V	APPROACH PROGRESS DISPLAY	34-34-00
3W	INSTRUMENT COMPARATOR DISPLAY	34-44-00
4A	PRIMARY ATTITUDE CONTROLS	27-00-00
4B	PROPULSION CONTROLS/THROTTLES	76-11-00
4C	THRUST REVERSER CONTROLS	78-34-00
4D	LANDING GEAR AND BRAKES	32-00-00
4E	FLAPS	27-50-00
4F	SPEED BRAKES	27-62-00
4G	TRIM	
4H	AUTO FLIGHT CONTROLS	22- -00
4M	NOSE WHEEL STEERING	32-51-00
4N	LEADING EDGE DEVICES	27-81-00
5D	ADF/RMI 1	34-57-01
5E	ADF/RMI 2	34-57-02
5G	VOR/RMI 1	34-31-01
5H	VOR/RMI 2	34-31-01
5J	VORTAC	34-31-00
5K	STANDBY COMPASS	34-22-00
5P	DME-1	34-55-00
5Q	DME-2	34-55-00
5U	VHF/NAV-1 (FFD)	
5V	VHF/NAV-2 (FFD)	
5W	VHF/NAV-1 (AFD)	
5X	VHF/NAV-2 (AFD)	
5Y	VHF/NAV-3 (AFD)	
6A	WEATHER RADAR	34-43-00
6C	TELEVISION	
7A	HYDRAULIC SUBSYSTEM	29-00-00
7B	ELECTRICAL SUBSYSTEM	24-00-00
7C	FUEL SUBSYSTEM	28-00-00
7D	AIR CONDITIONING SUBSYSTEM	21-00-00
7E	CABIN PRESSURE SUBSYSTEM	21-31-03
7F	PROPULSION SUBSYSTEM	23-20-00
7G	FLIGHT SUBSYSTEM	33-00-00
7H	OXYGEN SUBSYSTEM	35-00-00
7J	ANTI-ICE SUBSYSTEM	30-00-00
7K	RAIN REMOVAL AND DEFOG SYBSYS	30-40-00
7L	AUX POWER UNIT	49-61-00
7M	ENGINE START CONTROLS	74-31-00
7P	FIRE/OVERHEAT/SMOKE DETEC	26-00-00
7Q	DOORS	
8A	PILOT/COPILOT EXT VISION	
8B	MAPS/ CHARTS/CHKLST/REF/DATA	
8C	SEATS/SEATBELTS	
8D	EMERGENCY EQUIPMENT	
8E	PERSONAL EQUIPMENT	

1. Report No. NASA CR-3239		2. Government Accession No.		3. Recipient's Catalog No.	
4. Title and Subtitle NASA TLA Workload Analysis Support Volume 2 - Metering and Spacing Studies Validation Data				5. Report Date July 1980	
				6. Performing Organization Code	
7. Author(s) James L. Sundstrom				8. Performing Organization Report No.	
				10. Work Unit No. 513-52-13-33	
9. Performing Organization Name and Address Boeing Commercial Airplane Company P. O. Box 3707 Seattle, Washington 98124				11. Contract or Grant No. NAS1-13741	
				13. Type of Report and Period Covered Contractor Report	
12. Sponsoring Agency Name and Address National Aeronautics and Space Administration Washington, DC 20546				14. Army Project No.	
15. Supplementary Notes Langley Technical Monitor: Amos A. Spady, Jr. Topical Report					
16. Abstract The data presented in this report were used to validate the detail task of both the pilot and copilot for four metering and spacing scenarios. The output presents two measures of demand workload and a report showing task length and task interaction.					
17. Key Words (Suggested by Author(s)) Task scenario, General aviation single pilot timeline analysis, Crew workload, Metering and spacing, TCV				18. Distribution Statement Unclassified - Unlimited Subject Category 53	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified		21. No. of Pages 400	22. Price* \$13.00	



National Aeronautics and
Space Administration

SPECIAL FOURTH CLASS MAIL
BOOK

Postage and Fees Paid
National Aeronautics and
Space Administration
NASA-451



Washington, D.C.
20546

Official Business

Penalty for Private Use, \$300

NASA

POSTMASTER: If Undeliverable (Section 158
Postal Manual) Do Not Return
